

Victorian Sea Kayak Club

Sea Skills Study Guide

This material has been adapted from the New South Wales Sea Kayak Club study guide with kind permission from the author.

About this guide

This study guide complements material provided by Paddle Australia. It builds on Paddle Australia's guidelines to further reflect sea kayaking in Victoria. There are two sections to this Sea Skills Study Guide:

- Part one – study material
- Part two – questions to test your knowledge.

You can also access training material published by Paddle Australia. This material is continually being reviewed and updated on the [Paddle Australia website](#).

Sea Skills is not just about being recognised as an active participant on the club trip. It is also a recognition that you have skills and knowledge to act independently outside of club trips. Skills are a function of technique and fitness. Starting with a good foundation of stroke execution is best achieved with a qualified instructor. Then develop your skills by increasing your paddling fitness through getting out paddling and applying techniques.

Paddling technique review and development is ongoing even for more experienced paddlers. You do not need a perfect technique for Sea Skills, but it certainly helps and however you paddle you need to have good technique to help prevent injury.

Use the Paddle Australia 'Sea Skills Assessment Guidelines' to identify areas you need to learn about: <https://education.paddle.org.au/schemeAssessmentGuidelines/ag-213-Current.html>

Most of all, get time on the water with a group of skilled paddlers, preferably qualified instructors or trip leaders.

Focused training

Attend focused training sessions to help develop a safe paddling technique. Within the club, refer to the club event calendar or contact the training coordinator for upcoming training events. You can find other Paddle Australia national training providers, instructors and courses on the Paddle Australia Education page: <https://education.canoe.org.au/>

PART ONE: STUDY MATERIAL

Paddling Skills

Paddle Australia has written material that covers most skills. Most paddling skills are 'basic skills' but applied in a different environment. Sea Skills conditions are: wind conditions below Strong Wind Warning (<26 knots); seas below 1.0 m, surf to 1.0m, and a maximum distance of 5 NM offshore. The NSWSKC's training videos are an excellent resource: <https://www.nswseakayaker.asn.au/training-videos>.

Additional skills required for Sea Skills include performing a kayak roll in a surf environment and a re-enter and roll in fresh conditions at sea. For surf skills, you should aim to be safe with regards to yourself and others. You need to demonstrate holding a brace using both sides of the blade (at different times!). Shoulder protection is particularly crucial in the surf. Paddle Australia refers to back surf, which means having a bit of control or balance if your kayak is propelled backwards in surf. Practice by paddling backwards to the beach rather than bow first – you may be asked to do this for assessment! Bracing effectively and skill at rolling are related. Those with proper rolling technique have more confidence to lean their kayak and brace.

Rolling

This is a practical skill and it is best to start with a good instructor to ensure you do not develop bad habits. Development of a reliable roll can take dedication but the results will boost your confidence and add to your safety at sea. For self-study 'The Kayak Roll' Tips and Techniques is a good place to start: <https://performancevideo.com/the-kayak-roll>.

There are a number of website and social media videos out there for free on the internet and plenty of different rolling techniques. Don't overthink it. Any club sea or senior sea instructor is qualified to teach rolling. Learning to roll by attending a pool rolling session is a great way to start BUT remember once you get the idea in the pool you need to practice in the ocean to hone your roll.

Rescues

Assisted Rescue

A good rescue is one that encourages safety to all involved and returns paddlers to their cockpit in a timely fashion. The VSKC requires that all members should use and be familiar with the 'heel hook assisted rescue'. However rescues are situational (eg, near rocks, warm calm water, dynamic cold water) so you need to be familiar with modifications to this technique to suit the situation. For a demonstration of the heel hook rescue see: <https://www.nswseakayaker.asn.au/page-18315>

Scoop Rescue

You will also need to be able to perform a scoop rescue which is used for injured or otherwise incapacitated paddler. See https://www.youtube.com/watch?v=wE5y_DW2h04

Self Rescue

As a Sea Skills paddler you need to develop a reliable method of self rescue in fresh conditions. The preferred method is a re-enter & roll, which can be practised using a paddle float:

<https://www.nswseakayaker.asn.au/page-18323>

Self-rescue recovery aided by a paddle float is not an alternative for developing a re-enter and roll. It is a backup in case you are tired, injured or exhausted. Scramble or 'cowboy' self rescues are generally unreliable in fresh conditions and therefore not encouraged.

Towing

You should carry and know how to use a long and short tow line. There are various tow set ups you need to practice and be familiar with.

Contact tow

Rescues without a line or rope. It is a raft where the towee holds onto the rescuer's kayak stern or bow deck lines and the tower paddles across the two kayaks moving the raft forwards or backwards.

<https://www.youtube.com/watch?v=otEmFcTTrIU>

Single in-line tow

The name says it all – standard length tow lines are 15 meters with a quick release at the tower's end and the other end is clipped near the bow of the kayak being towed

<https://nswseakayaker.asn.au/page-18335>

V- Tow

For longer distances and where you have more paddlers who can help out a V-Tow can be more efficient. Separation between the two towers is critical. Too far apart is inefficient and too close restricts paddle efficiency.



You will need to practice all types of tows and be proficient in quick deployments and changes of towers whilst under way.

Navigation

For detailed navigation techniques and knowledge, see 'Basic Kayak Navigation' on the VSKC website: <https://vskc.org.au/resources/Documents/Training/Basic%20Kayak%20Navigation.pdf>

You will need to be familiar with most of the information contained within except calculating ferry glide angles. Just be aware that a process exists and that you may need to brush up on this if planning a journey that involves long crossings.

For a guide to the rule of 12th's & 50/90 rule see:

<https://vskc.org.au/resources/Documents/Training/Rule%20of%2012th%20and%2050-90%20rule.pdf>

Rope work

As per the Paddle Australia Assessment Guidelines, with demonstration conducted on land. You should focus on the bowline and the Figure of 8 knot. Animated Knots is a useful phone app and website: animatedknots.com

Weather

Check out the Bureau of Meteorology's Marine Weather Knowledge Centre:

- www.bom.gov.au/marine/knowledge-centre

Check marine weather definitions such as swell, sea, combined sea and swell, wave height, wind warnings, wind direction, and significant wave period. Learn how to read a synoptic chart to determine wind direction and probable forecast conditions for a given area.

C-L-A-P

C-L-A-P stands for Communication, Line-of-sight, Anticipation/Avoidance, and Position of most usefulness. While not covered by Paddle Australia, this is a useful principle for on-the-water tactics for leaders. Used, among others, by British Canoeing. Some resources:

- <https://www.ukriversguidebook.co.uk/forum/viewtopic.php?t=15284>
- <http://paddlerezine.com/c-l-a-p-more-than-just-an-acronym>

Surf

For the VSKC Sea Skills assessment you will have to self-launch on a surf beach, safely paddle out beyond the surf zone and safely return to the beach in a repeatable manner. You will also have to perform a roll under a breaking wave, surf backwards, manage your kayak with a flooded cockpit, and perform a re-enter and roll in the surf zone.

PART 2 RESEARCH QUESTIONS

Environmental

1. The beach area includes a shore area and back to the dunes. What are some ways in which sea kayakers can avoid damaging this fragile area?
2. National Parks do not allow you to gather firewood – why?

Seaways and boating rules

1. What do cardinal markers indicate?
2. How are cardinal markers used?
3. What shape is each type of cardinal marker?
4. What are the colour band combinations for each type of cardinal marker?
5. Why are they relevant to sea kayakers?
6. On what side of a channel should you paddle?
7. If you have an emergency when do you use your flares?

Marine VHF basics

1. If you hear a 'mayday' call on the radio and Marine Rescue fails to respond, what should you do?
2. What does the word 'securite' indicate when said three times at the start of a message?

General sea kayaking terms

1. What is broaching?
2. Explain the difference between Swede form and Fish form
3. Indicate the following parts of a sea kayak and state their purpose:
 - Deck
 - Deck Lines
 - Hull
 - Chines
 - Rocker
 - Keel
 - Deck Bungies
 - Cockpit
 - Coaming
 - Thigh Braces
 - Bulk Heads
 - Hatch covers
 - Foot Pegs/Rests
 - End Toggle
 - Bow
 - Stern
 - Gunwale
 - Skeg

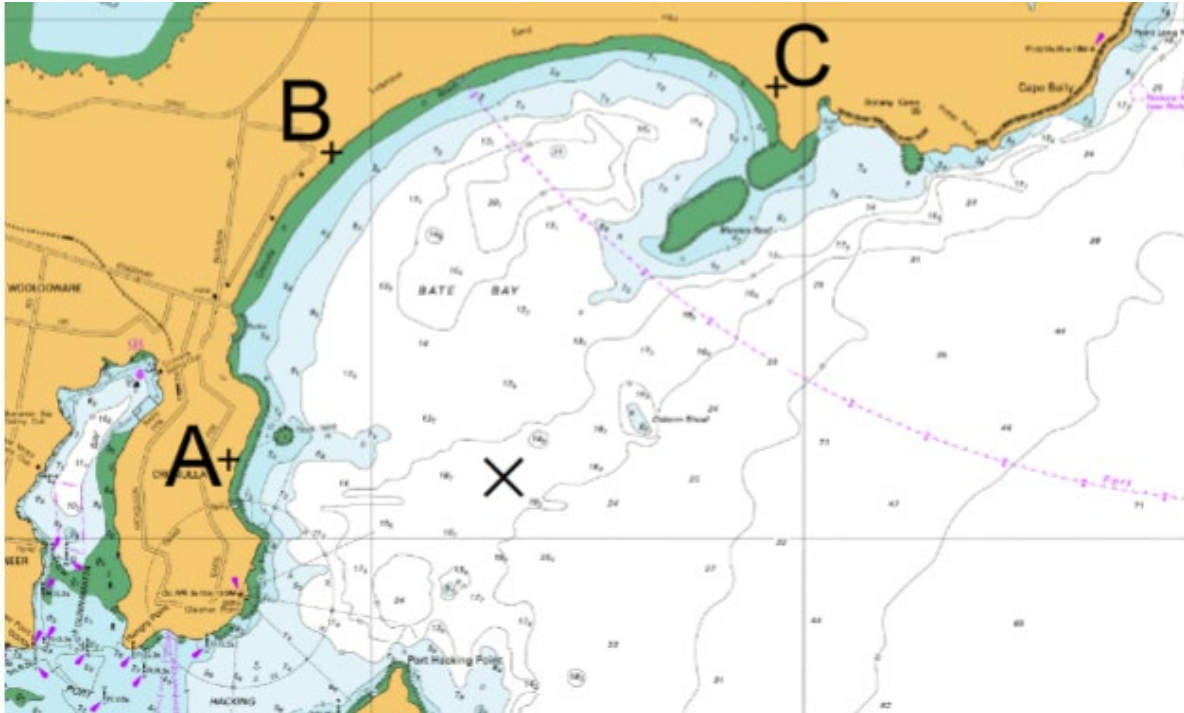
Weather

1. What is the average sea level air pressure on the Earth in millibars?
2. What direction does a low-pressure system rotate over southern Australia?
3. Explain the following terms:
 - Fetch
 - Clapotis
 - Overfall
 - Rebound
4. What is a 'Following Sea'?
5. What is a 'Quartering Sea'?
6. Different aspects of the weather, such as temperature, wind, tides, rain, air pressure, humidity and swell can be measured and predicted. Which aspects of the weather are most important to a sea kayaker?
7. How many sources of weather information can you list?
8. What are three reliable methods of obtaining a weather forecast in the field?
9. What is your primary weather forecast source at home and on an expedition?
10. Explain the term, 'Dress for the swim or dress for the paddle', and how it relates to sea kayaking in Victoria.
11. What is an isobar?
12. What is an East Coast Low?
13. In which Coastal Forecast Area do you paddle in most of the time?
14. What is your paddling threshold for forecasted wind and swell?
15. What would you do if paddling in an electrical storm?
16. What is a cold front?
17. What is sea fog?
18. What are wind bullets and where might you encounter them?

Surf

1. How would you identify a rip on a surf beach?
2. Why is it essential for sea kayakers to identify rips?
3. When do waves break?
4. How shallow does the water need to get before waves break?

The chart below shows Bate Bay and Cronulla, just south of Sydney. You are located at the X and are considering where to land. There is a 1.5 metre swell with a 15 second period from the SE, and it is high tide. There is no significant wind. Discuss the three sites marked concerning the type of surf you would expect and any other hazards you would consider. Provide a justification on which one would be the safest landing.



Tides & currents

- Explain the following terms:
 - Semi-diurnal tide
 - Tidal range
 - High tide
 - Spring tide
 - Neap tide
 - Ebb and flood
 - Tidal stream
 - Ferry glide
- What type of tides occur along the Victorian coast – semi-diurnal or diurnal?
- What is the tidal range on 25 April this year at Hastings, Westernport Bay?
- What time and how high is high tide on 25 April this year at the above location?
- What is the origin of the word 'Spring' in 'Spring Tide'?
- Explain the 50/90 rule and how is it useful to sea kayakers.
- How might you use transits when paddling in an area affected by currents?
- What is the difference between tidal streams and ocean currents?
- At the northern end of Wilsons Promontory a section of water known as 'Singapore Deep' or 'Five Ways' has a reputation for having rough water. Can you give three reasons for this?

Navigation

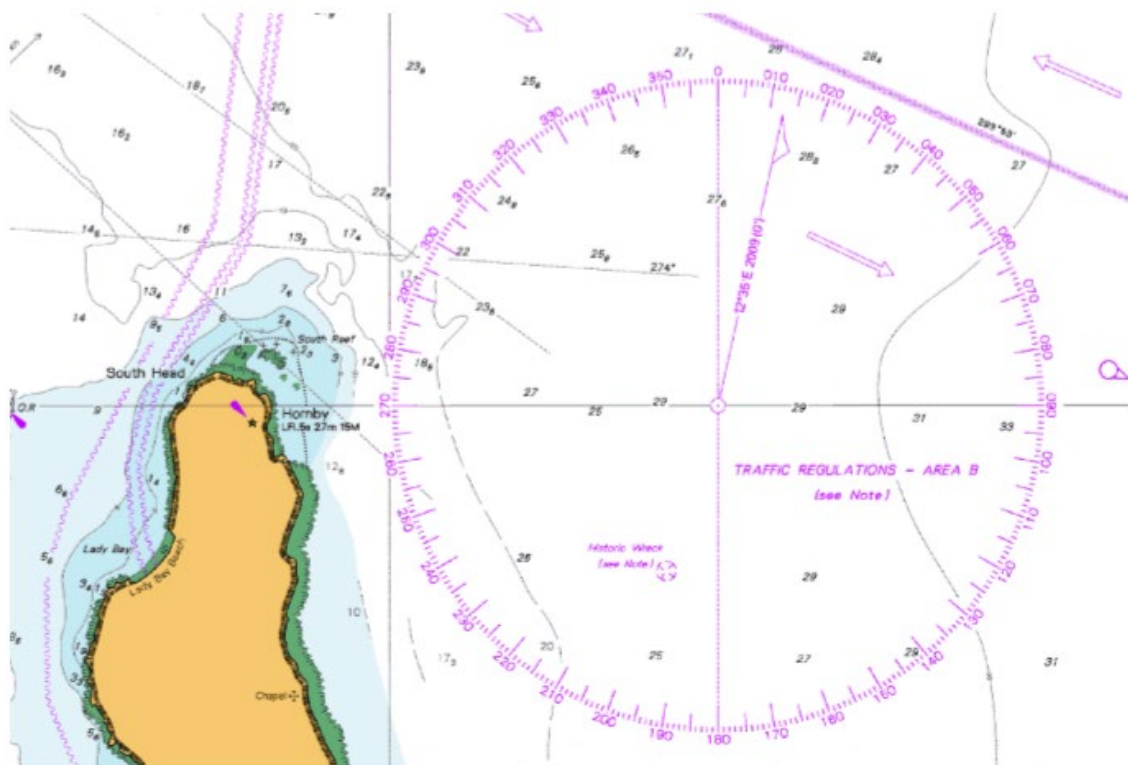
1. Explain the following terms:

- Handrail
- Magnetic bearing
- Magnetic variation
- Aiming off
- Transits
- True north
- Nautical mile and kilometre
- Knot
- Latitude & longitude
- Contour line

2. How many paddle strokes on one side do you do to cover 100m? (Go and find out – most people are between 25-35 strokes.)
3. What is your normal paddling speed? In knots and km/h. (Go and find out.)
4. What is the difference between Course and Bearing?
5. Explain some different ways of locating your position on a chart or map.
6. What is the difference between Piloting and Dead (or Deduced) Reckoning?

See chart below. You have drawn a course on your chart and measured as 220° using a protractor.

7. After looking at the compass rose below what bearing do you follow on your deck compass?
8. What does the green area around South Head denote?
9. What are the purple squiggly lines to the west of South Head and are they a concern for Sea Kayakers?
10. What is 'Hornby' and what does LR. 5s 27m 15M mean?



Night paddling

1. What is night vision?
2. By Victorian Maritime law what lights does a sea kayak need at night or in time of low visibility?
3. What are some considerations when paddling at night?
4. What are some precautions you should take when paddling at night?