

VICTORIAN RECREATIONAL BOATING SAFETY HANDBOOK

JULY 2015



MARITIME
SAFETY
VICTORIA 

www.transportsafety.vic.gov.au

 VICTORIA
State
Government

TRIP PREPARATION



Properly maintain your vessel, engine and safety equipment



Check the marine weather report



Ensure you have sufficient fuel and reserve fuel



Fully charge your batteries



Inform a person of your trip intentions



A marine licence is required to be the master of a recreational power boat in Victoria

SAFE OPERATION



MAXIMUM SPEED

- Within 50m of swimmers, other vessels and fixed or floating structures
- Within 100m of a diver below flag/flags



- Within 50m of water's edge (inland)
- Within 200m of water's edge (coastal and enclosed)



DON'T DRINK AND BOAT

- .00 blood alcohol limit applies for under 21 years of age and supervisors
- .05 blood alcohol limit applies for 21 years of age and over



MAINTAIN A GOOD LOOKOUT AND OPERATE AT A SAFE SPEED

EMERGENCY PROCEDURES



ALL OCCUPANTS TO PUT ON A LIFEJACKET

RAISE THE ALARM



- PHONE
Call 000



- FLARES
Activate when you see a potential rescuer or when you believe it will be seen



- MARINE RADIO
27MHz – Ch 88
VHF – Ch 16



- EPIRB
Activate your registered distress beacon



STAY WITH YOUR BOAT

- A vessel is a lot easier to spot than a person
- Anchor your vessel to maintain position (if safe to do so)

As of 1 February 2009 only digital 406MHz EPIRBs are detected by satellite. Analogue 121.5MHz EPIRBs are not detected. Switch to a digital 406MHz EPIRB and register it with the Australian Maritime Safety Authority.

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INTRODUCTION

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This handbook provides general information about operating a recreational vessel safely in Victoria. It is highly recommended that all masters and any other person involved with recreational vessels understand and comply with this handbook, and use it for future reference. This handbook should also be used to prepare for the test required before applying for a marine licence or a personal watercraft endorsement.

LEGISLATIVE FRAMEWORK

All persons involved in recreational boating in Victoria, and the vessels they operate are required to comply with the relevant marine safety laws in the State. This includes (but is not limited to):

- *Marine Safety Act 2010 (Vic)*
- *Marine Safety Regulations 2012 (Vic)*
- *Vessel Operating and Zoning Rules for Victorian Waters*
- *International Regulations for Preventing Collisions at Sea 1972 (COLREGS)*
- Relevant rules made by port managers or waterway managers, and
- Relevant harbour master directions.

Copies of Victorian legislation and parliamentary documents are available at www.legislation.vic.gov.au or may be purchased from the Information Victoria Bookshop at www.bookshop.vic.gov.au. Vessel operating and zoning rules and more general information on marine safety requirements are available online at www.transportsafety.vic.gov.au.

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ABOUT MARITIME SAFETY VICTORIA

Maritime Safety Victoria is a branch of Transport Safety Victoria (TSV) and is an independent statutory office that regulates the safety of bus, maritime and rail operations in Victoria. It is established under the *Transport Integration Act 2010* (Vic).

The Director, Transport Safety (referred to in this handbook as the Safety Director) leads Transport Safety Victoria and advises and makes recommendations to the Minister for Ports and the Minister for Public Transport on transport safety matters.

Maritime Safety Victoria aims to improve safety outcomes by regulating commercial and recreational vessel operations and ensuring a safe environment for their navigation on Victorian waters.

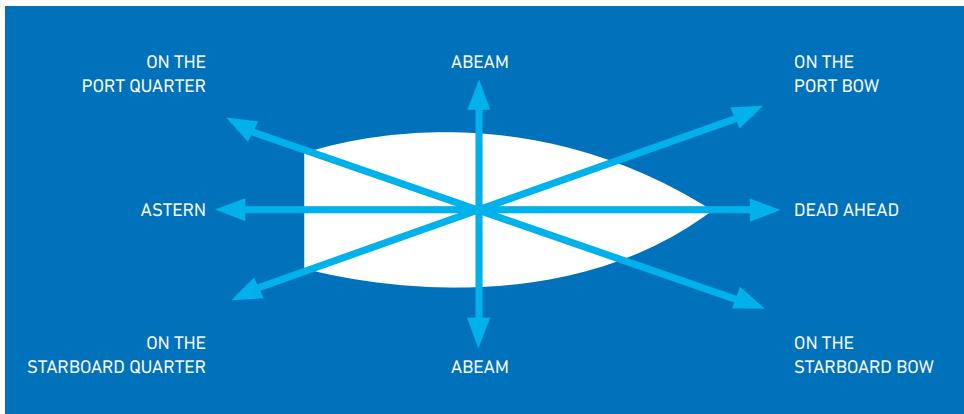
The Maritime Safety Branch regulates through:

- Permissioning activities such as issuing vessel registrations, marine licences, certifications of competency etc.
- Information and compliance activities from providing information, guidance and education, conducting safety audits or reviewing safety assessment or management documentation.
- Enforcement activities like prohibiting the operation of vessels, issuing infringement notices, conducting inquiries, taking disciplinary action or prosecuting for serious breaches of marine safety law.

These activities are supported by the positive working relationships Maritime Safety Victoria enjoys with the maritime industry, including port and waterway managers.

Any reference to Maritime Safety Victoria in this publication is also a reference to Transport Safety Victoria.

MARITIME DEFINITIONS



Term	Meaning
Abaft	Towards the stern
Abeam	Abreast of or at right angles to the fore and aft line of the vessel
Aft	Towards the stern or rear of the vessel
Astern, to go astern	Go backwards, put the engine in reverse
Bow	The front end of the vessel
Distance	Where 'miles' are referred to in this booklet 'nautical' miles are meant - one nautical mile = 1.852km
Emergency position indicating radio beacon (EPIRB)	A small electronic device used in ships and boats that, when activated in a life-threatening situation, assists rescue authorities in their search to locate those in distress
Give way	Slow, stop, go astern or change course to keep clear of another vessel
Gunwales	The top edge of a vessel's side (pronounced gunnels)
Heave to	Steering into the wind and sea making minimum headway
Knot (1)	One nautical mile an hour (equal to 1.852km/h)
Leeward	The side opposite to that from which the wind blows
Making way	Vessel under way and moving through the water, using power or sail
Marine Safety Act	The <i>Marine Safety Act 2010 (Vic)</i>
Marine Safety Regulations	The <i>Marine Safety Regulations 2012 (Vic)</i>
Master	A person having command or charge of a vessel (as defined under s3 Marine Safety Act)

Term	Meaning
Personal watercraft (PWC)	<p>Any recreational vessel that:</p> <ul style="list-style-type: none"> a) has an engine that is used for propulsion b) has a fully enclosed hull c) does not retain water on it if it capsizes d) is designed to be operated by a person standing, sitting astride or kneeling on the vessel, but not seated within the vessel, and that is of a kind required by or under the Marine Safety Act to be registered (s3 Marine Safety Act)
Lifejacket	Protective device designed to keep the wearer afloat above the surface of the water
Port side	Looking forward, the left-hand side
Speed	All speeds are measured in 'knots' - one knot = 1 nautical mile per hour
Standards	All equipment referred to in this document must meet standards detailed under the Marine Safety Act and its associated regulations and schedules
Starboard side	Looking forward, the right-hand side
Stem the tide	Go forward against the current
Stern	The back end or rear of a vessel
Under way	Not at anchor, made fast to the shore, or aground - if you are drifting, you are under way
Wash	Waves made by a vessel making way
Windward	The direction from which the wind blows (for example, upwind)

DEFINITIONS OF WATERWAYS

The following definitions of waterways are adopted in this handbook to provide guidance regarding the minimum safety equipment that you are required to carry for each type of waterway.

Term	Meaning
Inland waters	Rivers (inside the seaward entrance), creeks, canals, lakes, reservoirs and any similar waters either naturally formed or man-made and which are either publicly or privately owned but does not include any navigable rivers, creeks or streams within declared port waters.
Enclosed waters	(a) The declared port waters inside the seaward entrance of the following local ports: (i) the Port of Apollo Bay (ii) the Port of Anderson Inlet (iii) the Port of Gippsland Lakes (iv) the Port of Snowy River (v) the Port of Mallacoota (vi) the Port of Port Fairy (b) The declared port waters of the Port of Barwon Heads upstream of the Barwon Heads–Ocean Grove road bridge (c) The declared port waters of the Port of Corner Inlet and Port Albert east of a line between Port Welshpool shipping pier and Bentley Point (inside the entrances) (d) The waters of Shallow Inlet (e) The declared port waters inside the entrance of the Port of Portland (f) The declared port waters of the Port of Port Phillip (g) The waters of Western Port landward of its western entrance joined by a straight line drawn between West Head to the southern tip of Seal Rocks to Point Grant and landward of its eastern entrance joined by an imaginary line drawn between Cape Woolamai and Griffith Point as shown on the chart AUS 150 Australia - South Coast – Victoria - Western Port, published by the Australian Hydrographic Service from time to time

Term	Meaning
Enclosed waters (cont.)	<p>(h) The waters between the seaward entrance of Tamboon Inlet and the northerly boundary of a straight line drawn between Flanders track and the creek on the eastern side of the Inlet</p> <p>(i) The waters between the seaward entrance of Wingan Inlet and the northerly boundary of a straight line drawn between Rocky Creek and the bank directly opposite to the west</p> <p>(j) The waters between the seaward entrance of Sydenham Inlet and the mouth of the Bemm River.</p>
Coastal waters	All waters other than inland waters or enclosed waters.
Designated hazardous area	<p>(a) Port Phillip Heads, or</p> <p>(b) Any area of State waters declared by the Safety Director.</p>

MAPS SHOWING COASTAL, ENCLOSED AND INLAND WATERS IN VICTORIA

The following waterways are recognised as Victorian waters for the purposes of transport safety legislation:

- the waters of Ovens River south of the Murray Valley Highway Bridge
- the waters of Lake Hume downstream of the Bethanga Bridge
- the waters contained within the Victorian border of the lower Glenelg River.

Those waters of the Murray River, Lake Mulwala and Lake Hume not listed above are within New South Wales jurisdiction. Operators are advised that NSW legislation applies on these waters. Contact NSW Roads & Maritime Services on (02) 9563 8557 or visit www.maritime.nsw.gov.au.

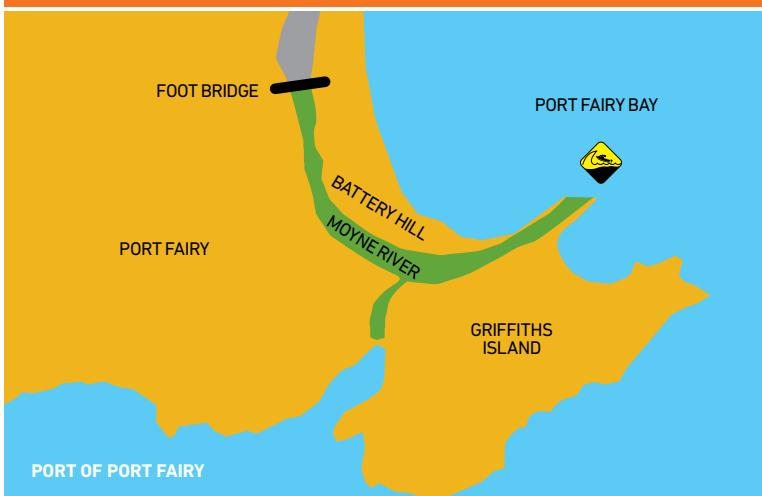
The specific operating rules for each Victorian waterway are set out in the Vessel Operating and Zoning Rules for Victorian Waters (VOZR). An up to date copy of the rules can be accessed on the Transport Safety Victoria website at www.transportsafety.vic.gov.au.



- Strong tides, currents and dangerous waves may exist where enclosed waters meet coastal waters
- Enclosed waters sealed off from coastal waters may break out causing extremely dangerous conditions
- An anchor and flares must be carried when boating in enclosed waters
- Check conditions prior to departure.



PORT OF PORT FAIRY



WARRNAMBOOL



 Coastal waters  Enclosed waters  Inland waters

Refer to pages 44-49 of this handbook to identify safety equipment requirements for these waters.

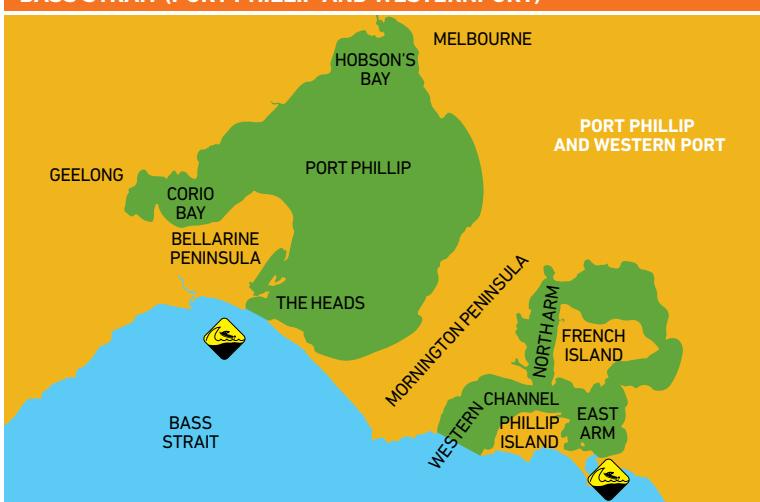
Further information and maps regarding Victorian waterways may be found at www.transportsafety.vic.gov.au.

MAPS SHOWING COASTAL, ENCLOSED AND INLAND WATERS IN VICTORIA

BARWON HEADS



BASS STRAIT (PORT PHILLIP AND WESTERNPORT)



- Strong tides, currents and dangerous waves may exist where enclosed waters meet coastal waters
- Enclosed waters sealed off from coastal waters may break out causing extremely dangerous conditions
- An anchor and flares must be carried when boating in enclosed waters
- Check conditions prior to departure.



MELBOURNE AND PORT PHILLIP



ANDERSON INLET



Coastal waters Enclosed waters Inland waters

Refer to pages 44-49 of this handbook to identify safety equipment requirements for these waters.

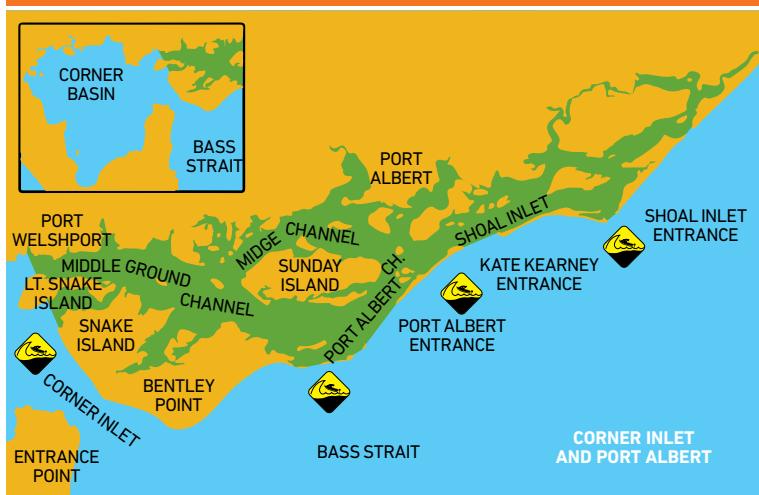
Further information and maps regarding Victorian waterways may be found at www.transportsafety.vic.gov.au.

MAPS SHOWING COASTAL, ENCLOSED AND INLAND WATERS IN VICTORIA

SHALLOW INLET



CORNER INLET AND PORT ALBERT



- Strong tides, currents and dangerous waves may exist where enclosed waters meet coastal waters
- Enclosed waters sealed off from coastal waters may break out causing extremely dangerous conditions
- An anchor and flares must be carried when boating in enclosed waters
- Check conditions prior to departure.



LAKES ENTRANCE



SNOWY RIVER



Coastal waters Enclosed waters Inland waters

Refer to pages 44-49 of this handbook to identify safety equipment requirements for these waters.

Further information and maps regarding Victorian waterways may be found at www.transportsafety.vic.gov.au.

MAPS SHOWING COASTAL, ENCLOSED AND INLAND WATERS IN VICTORIA

SYDENHAM INLET & TAMBOON INLET



WINGAN INLET



MALLACOOTA



Coastal waters

Enclosed waters

Inland waters

Refer to pages 44-49 of this handbook to identify safety equipment requirements for these waters.

Further information and maps regarding Victorian waterways may be found at www.transportsafety.vic.gov.au.

CHAPTER 1

SAFETY DUTIES

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DUTIES TO TAKE REASONABLE CARE

All persons participating in the operation of a recreational or hire and drive vessel (as a master, operator and crew, or passenger), and those being towed, are responsible for their individual and collective safety, and the safety of those in the vicinity of the vessel. In fact, the Marine Safety Act now imposes a specific

legal duty on all those participating in the operation of recreational or hire and drive vessels together with the passengers on that vessel to take 'reasonable care' to protect themselves and others from harm, including to not intentionally or recklessly expose others to unnecessary risks.

The nature of the duty depends on the role in relation to a vessel, for example:

Role	Nature of duty
Master of a recreational or hire and drive vessel	<ul style="list-style-type: none"> • take reasonable care for your own safety • take reasonable care for the safety of people who may be affected by your acts or omissions • not wilfully/recklessly place the safety of another person at risk who is on board or in the immediate vicinity of the vessel
Person who operates a recreational or hire and drive vessel (not being a master)	<ul style="list-style-type: none"> • take reasonable care for your own safety • take reasonable care for the safety of people who may be affected by your acts or omissions • comply with a master's direction given to operate the vessel safely or to comply with legal requirements • not intentionally/recklessly interfere with or misuse anything provided to you by a master for safety or legal reasons • not wilfully/recklessly place the safety of another person at risk who is on board or in the immediate vicinity of the vessel
Passenger on a vessel	<ul style="list-style-type: none"> • take reasonable care for your own safety • comply with a master's direction given to operate the vessel safely or to comply with legal requirements • not intentionally/recklessly interfere with or misuse anything provided to you by a master for safety or legal reasons • not wilfully/recklessly place the safety of another person at risk who is on board or in the immediate vicinity of the vessel

WHO IS A 'MASTER' OF A VESSEL?

The Marine Safety Act introduces a new concept of a 'master' of a vessel. This is someone who has command or charge over the vessel. A master is therefore distinguished from:

- an owner, being someone who owns the vessel
- an operator, being someone who controls the movement of the vessel.

For example, you as the owner of a vessel may allow your friend to be in charge of the vessel while it is out on the water (your friend is now the master). This friend decides not to operate the vessel himself but instructs another person to operate who becomes the operator.

The master must hold a marine licence (see chapter 2 for marine licence information), as well as comply with various requirements on masters under marine safety law including in relation to operating the vessel, reporting incidents or following notices or directions of Victoria Police or Transport Safety Victoria officers. It is therefore important for everyone to be clear about who is the master of any vessel before going on the water. If this is not clear, then the owner may be assumed to be responsible for certain offences relating to the operation of the vessel (see owner onus section).

WHAT DOES THIS MEAN IN PRACTICE?

In general, having good safety practices (like complying with this handbook, waterway rules and all other relevant safety standards) go a long way to demonstrating you have taken 'reasonable care'.

However, the more serious the risks associated with your operations, the higher the duty will be on you to take precautions, even if this goes beyond prescriptive obligations, or is costly or difficult. For example, as a minimum, masters of recreational vessels are expected to undertake safety assessments of their vessel operations and are required to carry

the safety equipment specified under marine safety law. However, depending on the nature of the vessel operations, the vessel might need to carry additional safety equipment that may be appropriate to control safety risks to acceptable levels. For example, if you are boating offshore or in fast moving water, the expected standard of care will be higher.

In addition, masters are expected to ensure that:

- the safety equipment on board is in good working order
- the condition of the vessel is well-maintained and safe (hull, deck, engine conditions, fuel systems, electrical systems etc.)
- you have prepared adequately for your trip (waterway zoning and maps, weather/wind/wave conditions, safe loading etc.)
- you navigate the vessel safely (steering and sailing rules, anchoring, launching, retrieving, crossing ocean bars etc.)
- all persons on board understand and comply with required emergency procedures.

OWNER ONUS

Under the Marine Safety Act an owner onus system for certain offences has been established. The system is based on the principle that, if the identity of the master or person in charge is not established at the time the offence is detected, the owner should generally be liable for the offence unless they can establish that they were not responsible for the vessel at the time of the offence and provide information sufficient to identify and locate who was.

An owner will not be deemed to be guilty of an owner onus offence if they provide one of the following statements within the required period which satisfies the requirements under the Marine Safety Act:

- (a) an illegal user statement
- (b) a known user statement
- (c) a sold vessel statement, or
- (d) an unknown user statement.

REQUIREMENTS IN RELATION TO REPORTABLE INCIDENTS

Under the Marine Safety Act, reportable marine incidents include:

- the loss or presumed loss of a vessel
- a collision with another vessel or object
- grounding, sinking or flooding
- a capsized vessel
- fire
- a structural failure or loss of stability
- a close quarters
- person overboard
- vessel becoming disabled and requiring assistance
- the fouling or damaging of any pipeline, submarine cable, lighthouse, lightship, beacon, buoy or marine mark.

Masters' responsibilities

Under the Marine Safety Act, a master is the person in charge of a vessel.

If the master is involved in a reportable incident, they are required to:

- immediately stop and secure the vessel
- immediately provide whatever assistance you can
- provide your contact details, the owners name and address, in addition to the registration or survey number to:
 - any injured person
 - the owner of any property which has been damaged
 - the representative of these people
 - the police present at the scene
- report in person to the most accessible police station if a person is injured or property damaged and the police or owner of the property are not present.

Who should I contact?

- If you require urgent assistance, dial triple zero (000) for the emergency services and request police assistance
- If an incident has occurred but you are not in any immediate danger, report it to Victoria Police on 1800 135 729.

Reporting incidents

The Marine Safety Act requires the master to provide the following details to the police present at the scene:

- the name and address of the master
- the name and address of the owner of the vessel
- the registration or survey number of the vessel.

If a person is injured and no police members are present, the master must report full details at the closest police station as soon as possible.

If any property is damaged or destroyed, and the owner, the owner's representative or police are not present, the master must report full details at the closest police station as soon as possible.

Incident reporting forms are available on the Transport Safety Victoria website at www.transportsafety.vic.gov.au.

 Before you sit your test to get your marine licence, would you like to check your knowledge about the information in this handbook? We have sample test questions available.

Download the questions from the Transport Safety Victoria website
www.transportsafety.vic.gov.au.

To have a copy mailed to you call **1800 223 022** or email
information@transportsafety.vic.gov.au.

CHAPTER 2

LICENSING AND

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RECREATIONAL MARINE LICENSING

All masters operating a powered recreational vessel on Victorian waters require a marine licence. The Marine Safety Act makes it an offence to be a master of:

- a registered recreational vessel unless the person holds a marine licence
- a personal watercraft (PWC) unless the person holds a marine licence endorsed for this type of recreational vessel.

Valid interstate marine licences are recognised in Victoria for up to three months.

TYPES OF MARINE LICENCE

MARINE LICENCE

A marine licence is required by any person 16 years of age and over who is operating a powered recreational vessel.

RESTRICTED MARINE LICENCE

A restricted marine licence is required by any person over the age of 12, but under the age of 16, who is operating a powered recreational vessel.

RESTRICTED MARINE LICENCE CONDITIONS

Holders of a restricted marine licence may act as master of a recreational vessel only if:

- a. operating during daylight hours between sunrise and sunset
- b. operating at speeds of less than 10 knots and
- c. not operating a vessel that is towing a person, another vessel or object.

Once a restricted master turns 16 years old, the restricted marine licence automatically becomes a marine licence.

Please note:

- Any person operating a powered vessel registered in Victoria must carry their marine licence at all times.
- Licences are only issued for a period of five years.

PERSONAL WATERCRAFT ENDORSED MARINE LICENCE

Masters of PWCs must obtain an endorsement on their marine or restricted marine licence in order to operate this type of vessel.

Note: A PWC endorsement may not be issued as a stand alone licence. If an endorsement is required, a marine licence must first be obtained.





OPERATING UNDER SUPERVISION

Under the Marine Safety Act an unlicensed person may operate a vessel under the direct supervision of a person who is:

- a. over the age of 18 years
- b. licensed and endorsed appropriately for the vessel being operated (for example, if a PWC is being operated, the licence must be endorsed for PWC operation)
- c. on board the vessel in a position where they are able to take immediate control of the vessel.

HIRE AND DRIVE REQUIREMENTS

The Marine Safety Act requires all masters to hold a marine licence (and any relevant endorsement) to operate a hire and drive vessel capable of a speed greater than 10 knots (18km/h).

A hire and drive vessel means a vessel (other than a recreational vessel) that is intended to be let for hire and includes vessels hired on a trailer and operated away from the place of hire, including those only capable of a speed less than 10 knots.

A PWC endorsement is required to operate a hired PWC.

The hire boat owner will brief clients on the operating requirements of the vessel being hired.

All operators, masters and passengers must comply with lifejacket wearing requirements outlined on page 55.

OBTAINING A MARINE LICENCE

An applicant for a marine licence must give VicRoads (who undertake marine licence and registration services on behalf of Transport Safety Victoria) an application in writing that contains or is accompanied by:

- (a) the applicants personal particulars
- (b) evidence to verify those personal particulars
- (c) evidence of one of the following:
 - (i) that the applicant has passed an appropriate test of knowledge, or
 - (ii) evidence that the applicant holds a licence, certificate or authority issued by the Commonwealth or another state or territory recognised under the marine safety law, or
 - (iii) evidence that the applicant holds a valid certificate of competency issued by Transport Safety Victoria
- (d) a declaration that the applicant is eligible to apply for the licence under the marine safety law
- (e) the relevant fee.

TEST OF KNOWLEDGE

Applicants for a marine licence can demonstrate the level of competency required by passing an appropriate test of knowledge. This is currently measured by a theory test which can be undertaken at any VicRoads customer service centre or through a Transport Safety Victoria accredited training provider.

A separate PWC endorsement test is required in addition to the marine licence. This test may also be undertaken at any VicRoads customer service centre or through a Transport Safety Victoria accredited training provider.

STUDY GUIDE

This handbook explains the main requirements on masters in relation to operating recreational vessels. It should be used as a key study guide and all parts must be well-understood prior to attempting the marine licence test and/or the PWC endorsement test.

TRANSPORT SAFETY VICTORIA ACCREDITED TRAINING PROVIDERS

Boating safety training courses offered by accredited training providers are highly recommended for any person considering obtaining a marine licence or endorsement. Transport Safety Victoria accredited training providers are listed on the Transport Safety Victoria website at:

www.transportsafety.vic.gov.au.

If you choose to take a boating safety course, you will generally sit the test provided by the accredited training provider at the conclusion of the course. Please note that you must provide evidence of identity consistent with VicRoads requirements to the test supervisor (refer to the evidence of identity section in this chapter for more information).

Note: Applicants should check the cancellation and refund policies of accredited training providers before enrolling in any course offered.

OBTAINING A MARINE LICENCE AFTER AN ACCREDITED TRAINING PROVIDER COURSE

To obtain a Victorian marine licence, applicants must take the certificate of completion from their training provider along with appropriate evidence of identity to VicRoads. New applicants are required to read an eyesight chart to test vision. A fee is payable for the marine licence and any endorsement. If you do not present your certificate to VicRoads within the valid period on the certificate, you will have to take the test again at a cost to you.

Certificates are only valid for the period stated on the certificate.

VICROADS TESTING

Alternative to sitting the test with your accredited training provider, you may book to sit the marine licence and/or PWC endorsement test by contacting VicRoads on:

- National calls: 13 11 71
- International calls: +61 3 9854 2666
- Impaired hearing or speech, and use a telephone typewriter (TTY): 1300 652 321.

If you wish to book in person, go to any VicRoads customer service centre listed at the back of this handbook.

Note: Test fees apply when booking a test at a VicRoads customer service centre. Please have your credit card details ready at the time of making the appointment.

When booking a test, an applicant will also be asked personal details such as name, date of birth and address. Depending on availability, an applicant can nominate when and where they would like to be tested. Each applicant will be given an appointment number, which is to be presented to the VicRoads test supervisor who conducts the test.

Note: Applicants wishing to cancel an appointment must give the testing VicRoads office at least 24 hours notice otherwise fees will not be refunded unless a medical certificate or other supporting evidence is produced.

WHAT IS INVOLVED IN THE TEST?

Whether you sit the test with the accredited training provider or at a VicRoads customer service centre, the test will be multiple choice to assess your knowledge of safe vessel operation. Test questions are based on all chapters of this handbook.

To obtain a passing grade for the marine licence test the applicant must correctly answer 26 out of 30 questions.

To obtain a passing grade for the PWC endorsement test the applicant must correctly answer 13 out of 15 questions.

ACCESSIBILITY OPTIONS

An interpreter may be provided by VicRoads for any person booking to sit the marine licence and/or PWC endorsement test.

Contact VicRoads on 13 11 71 if an interpreter in any language is required. You may also ask for assistance if you are hearing impaired.

MARINE LICENCE FEES

Fees apply to marine licences and PWC endorsements. For information on current fee amounts, please contact VicRoads.

INTERSTATE MARINE LICENCE HOLDERS

A person who holds an interstate marine licence, restricted marine licence, or PWC endorsed marine licence may operate the equivalent vessel in Victoria for a period of three months. If the visitor's stay extends beyond three months or the visitor does not have an equivalent interstate marine licence for the vessel they wish to operate, a Victorian marine licence must be obtained.

Note: Interstate visitors are required to observe Victorian regulations including speed restrictions and the wearing of lifejackets at certain times. An exemption applies for visiting vessels for the carriage of safety equipment – see pages 44-49 for further detail.

If you are an interstate marine licence holder but have resided in Victoria for more than three months, you must convert your interstate marine licence to a Victorian marine licence. If you have evidence of your equivalent interstate marine licence, you will be exempt from sitting the test run by VicRoads or an accredited training provider. To convert your marine licence, please bring your existing interstate marine licence and appropriate evidence of identity, to a VicRoads customer service centre (fees apply).

VICTORIANS TRAVELLING INTERSTATE

Transport Safety Victoria advises all Victorians who travel interstate to familiarise themselves and comply with local waterway rules.

PEOPLE VISITING VICTORIA

Holders of interstate marine licences who travel to Victoria must familiarise themselves with the marine safety laws applicable in Victoria and the contents of this handbook.

COMMERCIAL MARINE QUALIFICATION HOLDERS

Under the Marine Safety Regulations if you hold a commercial marine qualification such as a coxswain, skipper, master or mate certificate of competency, you may be:

- exempt from the requirement to hold a recreational marine licence if your certificate of competency was issued or renewed by Transport Safety Victoria since 1 July 2002 and not subject to any conditions relating to the person's health or fitness
- exempt from sitting the test run by VicRoads or an accredited training provider but you may still apply for a recreational marine licence by bringing along your valid certificate of competency and appropriate evidence of identity to a VicRoads customer service centre (annual fees apply).

Note: Some commercial qualifications remove the requirement to sit the marine licence test. However, a PWC endorsement test must be completed regardless of other qualifications.

For more information please contact Transport Safety Victoria on 1800 223 022.

EVIDENCE OF IDENTITY

Before a marine licence, restricted marine licence, or PWC endorsement can be issued, an applicant must provide one primary and one secondary document as evidence of identity. Additional documentation may be required if the documents are not in English or if documents show different names. Original documents should be presented.

Visit any VicRoads customer service centre or the VicRoads website at www.vicroads.vic.gov.au for details of acceptable evidence of identity.



VICROADS CHECKLIST

Do you have the:

- appointment number (if a booking was made)
- evidence of identity and age (see the evidence of identity section on the previous page)
- certified copies of any equivalent interstate marine licences or valid certificates of competency for the purposes of exemption from the marine licence or PWC endorsement test
- fee for the marine licence and/or PWC endorsement?

Applicants with poor vision

Applicants with poor vision must provide an eyesight certificate from an optometrist, a registered medical practitioner, occupational therapist or ophthalmologist with their licence application.

Applicants with a disability or illness that may affect their ability to operate a vessel

Applicants with a disability or illness that may affect their ability to operate a vessel should contact VicRoads as further information or testing may be required.

Note: A licence holder must inform VicRoads if they develop any medical condition or any previously disclosed medical condition has deteriorated which might affect the safe operation of a vessel.

If you would like further information on any aspect of the marine licensing process, please telephone VicRoads on 13 11 71 or if you have queries about whether your certificate of competency grants you an exemption, contact Transport Safety Victoria on 1800 223 022.

VESSEL REGISTRATION REQUIREMENTS

The Marine Safety Act requires the owner of a recreational powered vessel (one equipped with an engine that is capable of being used for propulsion) to register the vessel. The Marine Safety Act makes it an offence to cause or allow a vessel to be operated on Victorian waters unless the vessel is:

- registered in accordance with the marine safety laws, or
- exempt from registration.

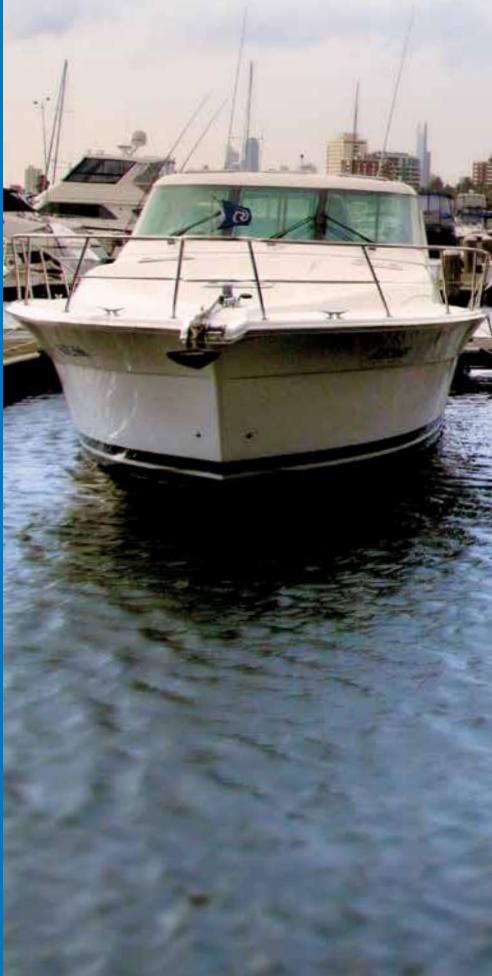
A recreational tender is exempt from registration but must be a vessel other than a PWC that:

- (a) does not exceed 4.8m in length
- (b) is used, or that is intended to be used, as a means of transportation but not for towing
- (c) conspicuously displays the name of its mother vessel or the registration number of that vessel and the letter 'T'
- (d) operates or is intended to operate:
 - (i) between the shore and another recreational vessel that is no more than 300m from the shore and no more than 300m from the point of its entry to the water
 - (ii) between recreational vessels that are no more than 300m apart.

You should only apply for registration of a vessel if you own or manage the vessel and are over the age of 14. To apply, you must provide evidence of identity and address, specific details of the vessel being registered and pay the fee for vessel registration (based on vessel length).

Required details of the vessel include:

- type of engine(s) or motor(s) used for propulsion
- type of vessel
- type of fuel required to operate the vessel
- any registration number previously assigned to the vessel
- number of hulls
- length, breadth and colour
- make of engine
- serial number(s) of the engine(s) or motor(s) used for propulsion, if any



- total horsepower of the engine(s) or motor(s), used for propulsion
- hull identification number, if known
- whether an Australian Builders Plate has been fixed to the vessel
- date of manufacture of the vessel, if known
- construction material
- make and model.

REGISTERING A VESSEL

Vessels may be registered by post or by visiting a VicRoads customer service centre. Download and complete the vessel registration form or transfer form from the VicRoads website, then book to visit a VicRoads office by calling 131171.

WHO CAN REGISTER A VESSEL?

A person 14 years old and over can register a vessel.

REGISTRATION LABELS AND IDENTIFICATION MARKS

Under the Marine Safety Regulations the owner of a registered recreational vessel must ensure that the registration label for that vessel, issued by VicRoads on behalf of Transport Safety Victoria, is fixed and remains fixed in an obvious position on the outside or upper part of the vessel.

The owner of a registered recreational vessel that is not a personal watercraft must ensure that the assigned identification mark is painted or displayed:

- on each side of the hull of the vessel
- forward of the beam
- so that the highest part of each digit commences at a point no more than 75 millimetres below the gunwale
- in characters that are:
 - no less than 150 millimetres high
 - in proportionate breadth
 - coloured in contrast to the surface on which they are displayed.

Recreational tenders are required to display the name of its mother ship or the registration number of that vessel and the letter 'T'.

The owner of a registered personal watercraft must ensure that the assigned identification mark is painted or displayed:

- on each side of the hull of the vessel
- forward of the beam
- so that the highest part of each digit commences at a point no more than 25 millimetres below the gunwale
- in characters that are:
 - no less than 100 millimetres high
 - in proportionate breadth
 - coloured in contrast to the surface on which they are displayed.

VESSELS REGISTERED WITH THE COMMONWEALTH

Operators of vessels that are registered with the Australian Maritime Safety Authority (AMSA) under the Shipping Registration Act 1981 should contact Transport Safety Victoria to see if they qualify for an exemption from State registration.

HULL IDENTIFICATION NUMBER (HIN)

A HIN is permanently affixed to a boat's hull. A HIN includes a unique national serial number along with information regarding the country of origin, and either manufacturer, model and year of production details for new boats, or an authorised agent code and the year it was affixed.

A HIN is not required for vessels to be registered in Victoria. If your vessel has a HIN affixed you must provide the number during the registration process.

AUSTRALIAN BUILDERS PLATE (ABP)

From October 2009, all vessels of a prescribed class were required to comply with the Australian Builders Plate (ABP) standard.

The Marine Safety Regulations require that recreational vessels are of a prescribed class and must comply with the ABP standard unless the vessel is:

- second-hand
- built for export from Australia
- built exclusively for racing in organised events
- an aquatic toy
- a canoe, kayak or surf ski or similar vessel designed to be propelled by paddle
- a hydrofoil or hovercraft
- amphibious
- pedal powered
- a racing boat
- a rowing shell used for racing or rowing training
- a sailboard
- a yacht
- a submersible
- a surf row boat
- a PWC that is designed to carry no more than two persons
- a PWC that is designed to carry three or more persons if the requirements specified in the Marine Safety Regulations have been met
- an inflatable boat to which ISO 6185 applies if the requirements specified in the Marine Safety Regulations have been met.

The ABP aims to make boating safer by providing information about the carrying capacity of vessels including the maximum number of people and load they can safely carry, the maximum outboard engine power and the buoyancy performance for smaller vessels.

Plates for vessels less than six metres need to have a buoyancy statement and specify either basic or level flotation.

Plates for vessels more than six metres do not require a buoyancy statement.

PROCEDURE FOR FITTING AN ABP

To obtain information and advice on the use of an ABP, visit the Australian Maritime Safety Authority (AMSA) website at

www.amsa.gov.au

or the Transport Safety Victoria website at
www.transportsafety.vic.gov.au.

 Before you sit your test to get your marine licence, would you like to check your knowledge about the information in this handbook? We have sample test questions available.

Download the questions from the Transport Safety Victoria website
www.transportsafety.vic.gov.au.

To have a copy mailed to you call **1800 223 022** or email
information@transportsafety.vic.gov.au.

CHAPTER 3

VESSEL PREPARATION

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BEFORE YOU GO BOATING

Every accident or incident is unique but all occur due to a series of events, circumstances or failures. Be prepared for as many of these possibilities as you can by having a vessel which is fit for the purpose for which it will be used. Carrying the appropriate safety equipment for the waterway being travelled will also dramatically reduce the chance of a small failure causing a catastrophic accident.

VESSEL SAFETY

The Marine Safety Regulations requires that the owner or master of a vessel must not allow the vessel to be operated if it is not fit for purpose or in a way that is in breach of any condition of the relevant vessel registration or marine licence.

A vessel is unsafe if the operation of the vessel may endanger any person because of the:

- condition or equipment of the vessel
- manner in which cargo and equipment is stowed or secured
- nature of the cargo
- overloading of the vessel with persons or cargo
- number or qualifications of the vessel's crew
- the absence of marine safety equipment that is required to be carried or installed on the vessel.

Knowing the capabilities and limitations of your vessel, keeping it clean, tidy, well maintained and well supplied will go a long way to keeping you and those around you safe on the water.

If your vessel is not fit for purpose or it is unsafe, Transport Safety Victoria may order the vessel to be provisionally or permanently detained. Transport Safety Victoria or a police officer may also direct that the vessel not be operated on Victorian waters or only under certain conditions.

FIT FOR PURPOSE

The Marine Safety Regulations define fit for purpose as:

- (a) the hull of the vessel is able to maintain watertight integrity
- (b) there is no fuel leaking from the vessel's fuel system or engine
- (c) the vessel's steering system controls the movement of the vessel
- (d) the ventilation system used for ventilating a space or spaces in the vessel is functioning
- (e) the material insulating machinery in the vessel from fire or flammable materials is fitted or undamaged
- (f) the materials or items comprising part of the vessel's reserve buoyancy are fitted or undamaged
- (g) the engine kill switches are fitted to the vessel and are operable.

KEEP YOUR VESSEL FIT FOR PURPOSE

Properly maintain your vessel

- Inspect propeller nut and pin
- Check for water and fuel leaks
- Ensure bung is suitable and in good condition
- Ensure bilges are clean and dry
- Check reserve buoyancy for condition
- Test steering for stiffness
- Check wiring
- Check and clean fuel filter
- Clean cooling system passages
- Replace outboard pull cord if fraying.



Fully charge your batteries

- Top up battery cells with distilled water and check each cell with a hydrometer
- The battery should be charged but never overcharged
- The terminals, cables and casings should be kept clean
- Test all electrical equipment operating from the battery such as radios, gauges, power tilt, navigation lights.



Ensure you have sufficient fuel

- Allow 1/3 out, 1/3 return and 1/3 reserve
- Always replace old fuel after periods of inactivity
- Inspect fuel lines, manual priming bulb and connections for cracks, leaks, etc.
- Inspect the fuel tank for cracks or corrosion
- Always check for fuel smells and ventilate your vessel well before starting the engine.



DO NOT GO OUT WITH OLD FUEL

BUOYANCY

A vessel is not fit for purpose if materials or items comprising part of the vessel's reserve buoyancy are missing or damaged.

A prime function of a vessel is to provide buoyancy to its occupants. A vessel should float at the surface, even if it is flooded, swamped or capsized. Ideally, the vessel should have level flotation – this means that it will stay upright even if full of water, and will support its own weight plus the motors and occupants.

The occupants of a swamped or flooded vessel will have a greatly improved chance of survival if it remains floating, upright and level, this being achieved by correctly sized and fitted internal buoyancy by:

- minimising the occupants' immersion in water, avoiding drowning and hypothermia
- providing access to the vessel's safety equipment, such as flares, radios, EPIRB or torch
- providing a larger target for searchers to see (a vessel is easier to see than people in the water)
- providing some shelter from wind and weather.

Many vessels may not have sufficient buoyancy to provide support to the crew if full of water. If your vessel does not have an Australian Builders Plate (ABP), or if the plate does not state that the vessel has level flotation, it may not have sufficient buoyancy. This can even apply to quite new vessels as the ABP has only been required in Victoria since 2009.

The amount of buoyancy a vessel requires is dependent on the amount of weight the buoyancy has to support. Any changes in the vessel, its engine or fittings will change its buoyancy requirements. A vessel should be checked regularly, and the buoyancy requirements should be recalculated whenever there is a weight change – for example, if a new motor is fitted.

Buoyancy can be compromised through poor retrofitting of new or replacement fittings, equipment, engines and other components, especially if watertight air chambers are perforated.

If you have a vessel that has no reserve buoyancy, or has insufficient or damaged buoyancy, you should consider retrofitting buoyancy into your vessel.



Basic flotation means that the boat will float in some form if swamped. If the boat has capsized, it will remain afloat for you to possibly cling on to the upturned hull.



Level flotation means that the boat will continue to float in a level position if swamped and will be prevented from capsizing in calm water. This will allow you to remain in the boat and bail the vessel to remove the water.

Please note the above diagrams are illustrative only and apply in calm water.

ADDING FOAM BUOYANCY

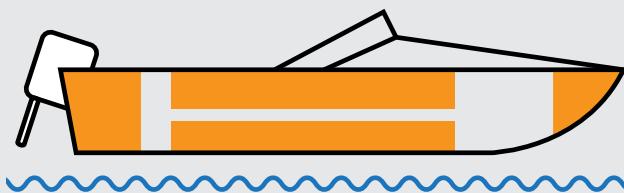
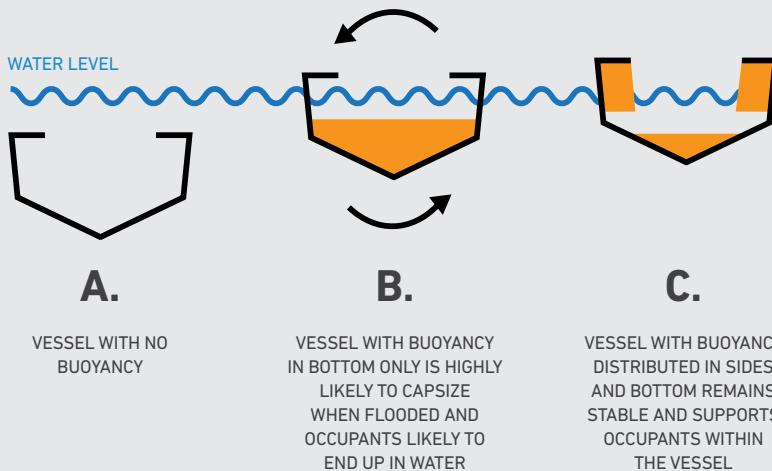
While having air cavities for buoyancy are better than nothing, these cavities can admit water if welds give way or the structure becomes non-watertight. Air-filled bladders are also an option. However, cavities are best filled with closed-cell foam that is designed for marine use.

Note: As this is critical to the safety of your vessel, Transport Safety Victoria recommends you engage a competent person to fit buoyancy.

PLACEMENT OF BUOYANCY

Do not place all of the buoyancy low down as this will make the vessel very unstable if it floods and can cause it to turn over. At least 50 percent of the foam should be under the gunwales and high in the hull so that, as the hull is flooded, the foam intersects the water line and stabilises the vessel.

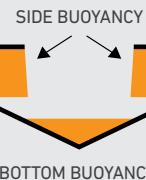
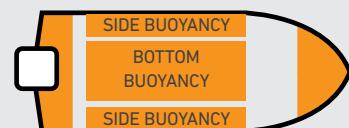
Buoyancy should be distributed along the length of the vessel in a similar proportion to the distribution of weight in the vessel. For most small vessels with outboard motors this will translate into these proportions: 50 percent aft, 25 percent midway, 25 percent in the bow.



SUPPORTS APPROX.
50% MASS

SUPPORTS APPROX.
25% MASS

SUPPORTS APPROX.
25% MASS



BOTTOM BUOYANCY

CHOICE OF MATERIAL

Block foam is the most convenient way to fit buoyancy in a small vessel.

Use a closed cell foam that is intended for the purpose. Polyethylene and polyurethane foams will have the desired characteristics. The National Register of Compliant Equipment, on the National Marine Safety Committee website at www.nmsc.gov.au, lists a range of accepted buoyancy products by brand and supplier.

In general, non-marine foams are unsuitable for use as buoyancy in vessels as they:

- react with metal hulls and cause corrosion
- absorb water over time
- may be flammable, or soluble in petrol.

Foam blocks can be cut to size and fixed under the gunwales, under bench seats, to the underside of decking and against the face of the transom using battens, straps or appropriate adhesives. There is a useful video demonstration on the website of Marine and Safety Tasmania at www.mast.tas.gov.au that shows foam blocks being fitted to a range of small vessels.

Foam should be firmly secured to prevent movement. Securely fitting the foam will stop it abrading against the hull and creating particles that can block valves and pumps. It is good practice to fit it in such a way that it can be replaced.

Foam should be secured within the structure of the vessel. If the vessel is flooded the buoyancy will try to float free of the vessel.

Wrapping foam blocks in strong plastic sheeting will help to protect them and keep them dry.

Pouring 'two pot' foam can be used to fill awkward spaces and can provide excellent buoyancy but it is best installed by a suitably qualified person.

Be aware that if you pour foam into a space you are unlikely to be able to access that space later, and it is very difficult to inspect or replace the foam.

Pouring foams expand and it is important to accurately calculate quantities. If used incorrectly the foam can stress the hull and rupture joints. This can occur even if there are 'escape holes' as some foams expand in all directions at once.

INSPECTION

You should make a visual inspection of the buoyancy materials at least every 12 months, and replace any degraded materials.

There are several standards that deal with buoyancy in small vessels which can be used for guidance. The following standards are recognised by the National Maritime Safety Committee (NMSC) for commercial vessels:

- International Standard ISO 12217-1:2013 "Stability and buoyancy assessment and categorisation Part 1: Non sailing vessels exceeding 6m in length"
- International Standard ISO 12217-2:2013 "Stability and buoyancy assessment and categorisation Part 2: Sailing vessels exceeding 6m in length"
- International Standard ISO 12217-3:2013 "Stability and buoyancy assessment and categorisation Part 3: Vessels not exceeding 6m in length"
- Australian Standard AS1799: 2009 "General requirements for small craft"
- American Yachting and Boating Federation standard
- Reference can also be made to the National Standard for Commercial Vessels (NSCV).



NAVIGATION LIGHT FITTINGS

Are your lights correctly fitted?

These guidelines have been developed for powered vessels less than 20m in length and can help you:

- select the right lights for your vessel
- avoid common problems when locating lights
- wire lights correctly.

Legal requirements

By law, navigation lights and their installation on recreational vessels are required to comply with the positioning and technical requirements of an international agreement, commonly known as the *International Regulations for Preventing Collisions at Sea* 1972 (COLREGS) which has been adopted in Victorian marine safety law.

Marine safety authorities enforce the requirements of the COLREGS and can provide a summary of those requirements as they apply in your local area.

Which vessels need to have lights fitted?

All vessels must show lights if operating at night or in restricted visibility. Even a vessel that does not travel between dusk and dawn may still need to show lights, for example, during a heavy rain shower or when at anchor.

Vessels operating by sail or rowing are required to show different lights to those motoring. However, a yacht must comply with the power vessel lighting requirements when under motor.

GENERAL ADVICE ON INSTALLATION

Avoiding damage

Navigation lights must be installed in accordance with the manufacturers' instructions. Navigation lights should be mounted so as to minimise damage caused by contact with other objects under normal operating conditions. For example, lights mounted on the topsides of smaller crafts can be damaged when coming alongside a wharf or pontoon, and lights mounted at the bow near anchor fittings can also be vulnerable and need to be protected.

Lights affecting the operator's vision

Navigation lights must be installed to prevent the lights from shining into the operator's eyes. For open vessels, this can be achieved by using a shielded light on a mast or pole. This could also be achieved by placing the light support behind the operator and above head height, rather than in the bow or amidships. Some LED lights are less prone to affecting night vision than conventional incandescent lights.

Wiring

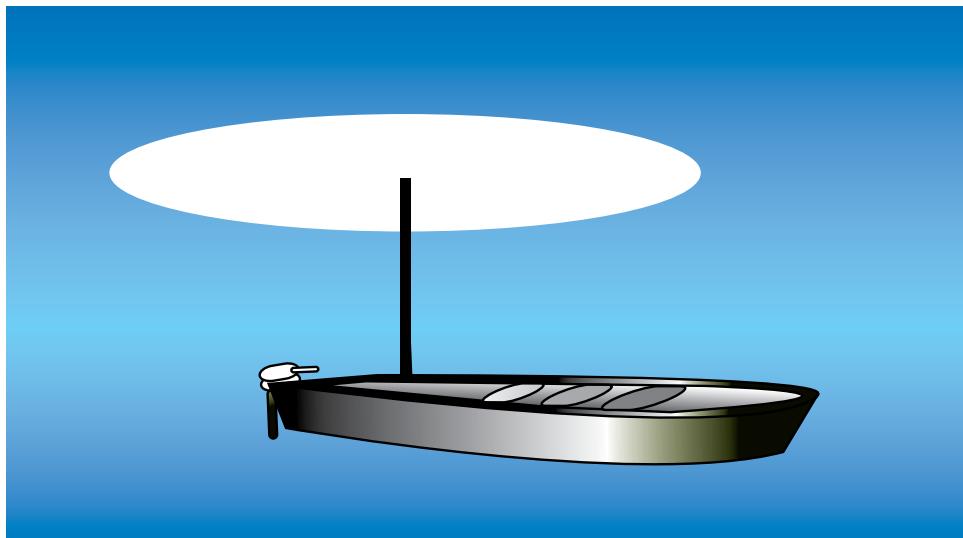
Navigation light wiring must be installed in accordance with a recognised wiring code. A white cable is normally used from the switch to the light and black is used for the return or negative conductor. The circuit should be fitted with a fuse or circuit breaker and only to be used for the navigation lights. Conductors used for wiring must be sized to ensure no more than a 3% voltage drop.

The lights should be wired so that one position of the switch turns on all the required running lights and a different position turns on just the anchor light. Alternatively, two switches that achieve this same result could be used.

Which light fittings to use

Any navigation light that is fitted to your vessel must meet the requirements of the COLREGS.

Pay particular attention to the shielding arrangements to ensure the light only shines in the correct direction and there is no overlap on combination lights.

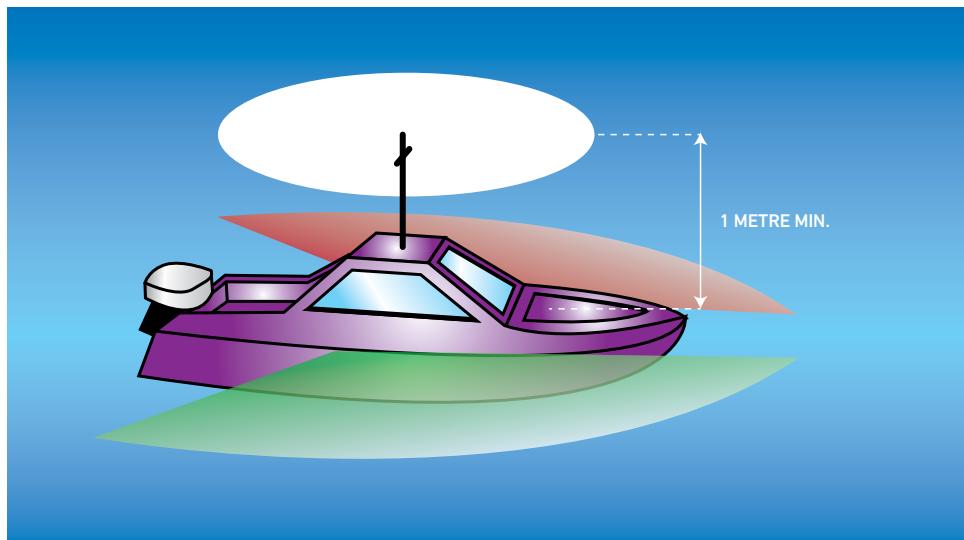


SPECIFIC TYPES OF LIGHTS

All round white light

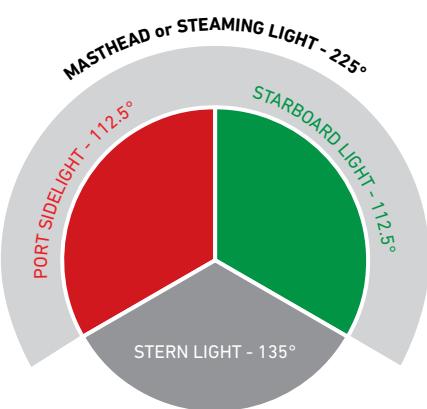
An all-round white light shows over a nominal arc of the horizon of 360° . The light fitting must be located at least one metre above the sidelights and should, as far as practicable, be on the centreline of the vessel.

As a general rule, an all round white light should not be obscured by masts or other structures by more than 6° of arc. If that's not possible, or the light would shine into the operator's eyes, a masthead light in combination with a stern light is an alternative to an all round white light.



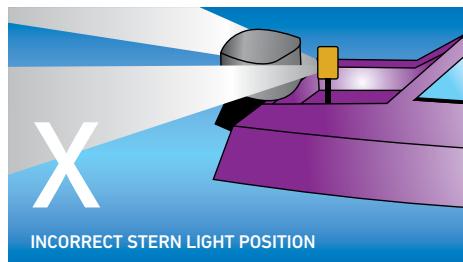
Masthead light

Vessels over 12m in length are required to have a white masthead light, mounted at least 2.5m above the gunwale that shines forward over an arc of the horizon of 225° , so that it can be seen from ahead of the vessel to just aft of the beam. In addition, regardless of the vessel's length, the masthead light must be located at least one metre above the sidelights and should as far as practicable, be on the centreline of the vessel.



Stern light

A stern light is located near the stern to show a white light over an arc of the horizon of 135° behind the vessel. On an outboard craft, it may be necessary to mount the stern light on a mast, or to one side of the vessel, to avoid the motor obscuring the light.



INCORRECT STERN LIGHT POSITION

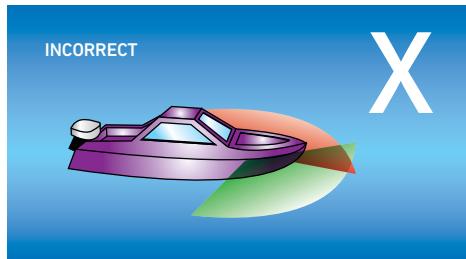
Side lights

Most vessels need to have a port (red) and a starboard (green) side light each showing an unbroken light over an arc of the horizon of 112.5°. If the design of the vessel allows, a combination port and starboard light unit can be mounted on the centreline of the vessel, in place of two individual side lights.

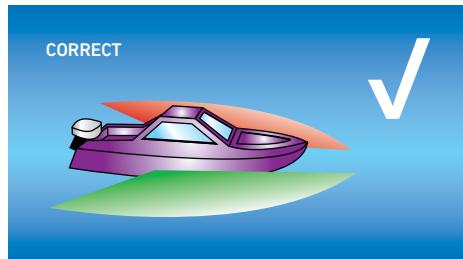
Individual side lights come in two styles, those intended to be mounted on a horizontal surface such as a deck and those intended to be mounted on a vertical surface such as the topsides or the side of the cabin. Be careful not to mount lights on a horizontal surface if they are designed to be mounted on a vertical surface, and vice-versa, because they will shine in the wrong direction.

Horizontally mounted side lights generally come with a reference line marked on them which must be kept parallel to the centreline of the vessel when fitting the light.

Vertically mounted side lights must be fitted with the back of the light parallel to the centre line of the vessel so that the light will be visible in the correct sector and the lights don't cross over. This means when lights are mounted on a vertical or near vertical surface that is not parallel to the centre line or not vertical, a wedge or similar must be provided to achieve the correct alignment in both planes.



INCORRECT



CORRECT

SEASONAL MAINTENANCE SCHEDULE

In addition to the section on fit for purpose vessels, you should also follow the checklist below to help you ensure that your vessel is maintained appropriately around boating season.

VESSEL MAINTENANCE SCHEDULE AND CHECKLIST

Vessel part	MAINTENANCE PERIOD		
	Pre-season	Mid-season	Post-season
Fuel tank	Avoid using old fuel Keep clean and dry	Maintain proper fuel/oil Check for water in fuel	Store in dry place (vented) Metal, swish with 2 stroke oil
Fuel line	Check for cracking and loose fittings	Watch for leaks	Drain
Fuel filter	Check and replace as necessary	Check and clean	Check and clean
Fuel system (if you suspect an ethanol fuel blend has been used)	Drain and clean out tank Clean fuel lines Change fuel filters Have engine fuel system checked and serviced	Do not leave ethanol fuel standing in any tanks Check fuel filters Monitor engine operating temperature	Drain all ethanol blended fuel from tanks, fuel lines and carburettors
Batteries	Check electrolyte, top up with distilled or purified water Recharge, check mountings, clean terminals	Check electrolyte, top up with distilled or purified water Recharge, check mountings, clean terminals	Check electrolyte, top up with distilled or purified water
Engine	Replace oil	Check and replace oil as required	Store upright
Pull cord	Replace if fraying	Check for fraying	Check for fraying
Wiring	Check for cracking, loose wires and corrosion	Check wires for chafing	Check for wear

Vessel part	MAINTENANCE PERIOD		
	Pre-season	Mid-season	Post-season
Spark plugs	Clean and gap or replace	Watch for fouling, moisture Keep engine tuned Clean and gap as necessary	
Cylinders	Check for compression		
Steering gear and other moving parts	Lubricate all moving parts	Lubricate every 60 days	Lubricate before storing
Power unit	Drain and refill gear case oil	Repeat every 100 hours of operation or once a season	
Cooling system	Clean passages	Check ports for weeds Flush after use in salt water	Flush with water Drain all water by pull starting with plugs disconnected
Propeller	Sand or file small nicks	Check regularly	Check condition Repair if required
Reserve buoyancy	Check condition and security, replace worn or degraded materials	Check security regularly	Keep clean and dry
Hull and outer surfaces	Clean hull Replace sacrificial anodes as appropriate	Keep clean	Keep clean, touch up with paint (but don't paint the anodes)

PRE-START CHECK LIST

VESSEL

- Make sure your vessel is fit for purpose and is capable of making the trip you have planned.
- Before operating any switches or engines, check for petrol and/or LPG odours and ventilate.
- Check lights and electrics, such as radios, gauges and power tilt, are working.
- Ropes and lines should be in good condition and ready for use.

EQUIPMENT

- Ensure you have the correct safety equipment for the area you intend to operate in (see chapter 4).
- Make sure all safety equipment is easily accessible and in good working order.
- Carry a radio. A 27MHz or VHF radio will keep you in touch with marine services and will be of great assistance if you get into trouble. A pocket transistor will help you, as you can tune in to the weather forecasts.
- Undertake a radio check to ensure that your radio works and check that your mobile phone is charged and stored in a dry location.
- Check the gauge on your fire extinguisher and make sure it's stored in an accessible location. A fire blanket must be carried in enclosed cooking spaces.

SUPPLIES

- Ensure you have food and water for the trip and sufficient supplies in case of an emergency for everyone on board.
- Check that your vessel is not overloaded. Take into account luggage and heavy equipment.
- Stow all gear securely and make sure everything is evenly balanced.
- Ensure you have a complete first aid kit.

CLOTHING

- Check you and your passengers have adequate clothing for a change in the weather. Make sure you won't be overexposed to sunlight, wind and rain.
- Carry adequate wet weather gear for the trip you are planning.
- Clothing should be comfortable and not restrict your movements.
- Clothing can reduce your buoyancy so wear a lifejacket (see chapter 4).
- Check your ability to swim or float in your clothes. Try it out in shallow water so that you are prepared in an emergency.

 Before you sit your test to get your marine licence, would you like to check your knowledge about the information in this handbook? We have sample test questions available.

Download the questions from the Transport Safety Victoria website
www.transportsafety.vic.gov.au.

To have a copy mailed to you call **1800 223 022** or email
information@transportsafety.vic.gov.au.

CHAPTER 4

SAFETY

EQUIPMENT

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MINIMUM SAFETY EQUIPMENT

The minimum safety equipment requirements vary under the Marine Safety Act depending on the class of vessel being operated.

The table overleaf shows the minimum safety equipment that must be carried on board each class of vessel. This equipment is for your own safety and the safety of others on the water.

As these are minimum requirements only, you should make a safety assessment of your vessel operations and determine whether more equipment is required to take reasonable care of your own and others' safety. Thinking beyond the basics will also give you a better boating experience. There are multiple things a sensible master will want to have aboard to enhance safety, confidence and enjoyment. Although not prescribed under Victorian law, they may be easily acquired and at reasonable cost. For example, it is recommended that you carry a first-aid kit, adequate drinking water and a basic tool-kit on board.

EQUIPMENT EXEMPTIONS

Under the Marine Safety Act a person operating a vessel on Victorian waters who normally resides outside Victoria is exempt from carrying the prescribed safety equipment for a period of up to three months provided the vessel complies with the safety equipment requirements of their home state or territory. **All interstate visitors must comply with the requirements to wear personal flotation devices (lifejacket) under the conditions required in marine safety law.**

Transport Safety Victoria may grant exemptions from equipment requirements for recreational vessels operated under certain circumstances. These exemptions are usually applied to incorporated clubs, organisations or associations that demonstrate a need for exemption and are only given where other appropriate safety measures are demonstrated.

Refer to the Transport Safety Victoria website at www.transportsafety.vic.gov.au for current exemptions.

EQUIPMENT PLACEMENT AND MAINTENANCE

The Marine Safety Regulations require all safety equipment worn or carried on board to at all times be:

- easily accessible
- kept in good working condition
- maintained or serviced in a way that ensures it can be operated in the way that it was designed to be operated, and
- serviced on or before the date specified by the manufacturer.



MINIMUM SAFETY EQUIPMENT REQUIREMENTS FOR MECHANICAL, SAIL AND HUMAN POWERED VESSELS

	POWERBOAT				PWC
	Coastal offshore (>2nm from coast)	Coastal inshore (<2nm from shore)	Enclosed (bays and estuaries)	Inland (rivers, lakes and dams)	All waters
	Lifejacket (per person on board/towed)	Type 1	Type 1	Type 1	Type 1, 2 or 3
	Approved fire extinguisher	Where any fuel is carried, refer to fire fighting equipment tables in this chapter on page 58 to determine number and capacity required.			
	Waterproof buoyant torch	1	1	1	1
	Anchor and chain or line or both	1	1	1	
	Bailer (if no electric or manual bilge pumping system)	1	1	1	
	Bucket with lanyard (can also double as a bailer)	1	1	1	
	Electric or manual bilge pumping system (if vessel has covered bilge or closed underfloor compartments other than airtight void spaces)	1	1	1	
	Pair of oars with rowlocks or pair of paddles (if vessel is up to and including 4.8m)	1	1	1	
	Spare oar with rowlock or spare paddle				
	Hand held orange smoke signals	2	2	2	
	Hand held red distress flares	2	2	2	
	Lifebuoy (if vessel is more than 8m but less than 12m in length)	1	1	1	1
	Lifebuoy (if vessel is more than 12m in length)	2	2	2	2
	Dinghy or liferaft (if vessel is more than 12m in length)	1	1		
	Compass	1			
	Marine radio	1			
	Red star parachute distress rocket	1			
	Registered EPIRB	1			1 if more than 2nm from coast (coastal offshore)

RECREATIONAL TENDER				
	Coastal offshore (>2nm from coast)	Coastal inshore (<2nm from shore)	Enclosed (bays and estuaries)	Inland (rivers, lakes and dams)
	Lifejacket (per person on board/towed)	Type 1	Type 1	Type 1 or 2
	Approved fire extinguisher			
	Waterproof buoyant torch			
	Anchor and chain or line or both			
	Bailer (if no electric or manual bilge pumping system)			
	Bucket with lanyard (can also double as a bailer)			
	Electric or manual bilge pumping system (if vessel has covered bilge or closed underfloor compartments other than airtight void spaces)			
	Pair of oars with rowlocks or pair of paddles (if vessel is up to and including 4.8m)			
	Spare oar with rowlock or spare paddle			
	Hand held orange smoke signals			
	Hand held red distress flares			
	Lifebuoy (if vessel is more than 8m but less than 12m in length)			
	Lifebuoy (if vessel is more than 12m in length)			
	Dinghy or liferaft (if vessel is more than 12m in length)			
	Compass			
	Marine radio			
	Red star parachute distress rocket			
	Registered EPIRB			

MINIMUM SAFETY EQUIPMENT REQUIREMENTS FOR MECHANICAL, SAIL AND HUMAN POWERED VESSELS

		YACHT			
		Coastal offshore (>2nm from coast)	Coastal inshore (<2nm from shore)	Enclosed (bays and estuaries)	Inland (rivers, lakes and dams)
	Lifejacket (per person on board/towed)	Type 1	Type 1	Type 1 or 2	Type 1 or 2
	Approved fire extinguisher	Where any fuel is carried, refer to fire fighting equipment tables in this chapter on page 58 to determine number and capacity required.			
	Waterproof buoyant torch	1	1	1	1
	Anchor and chain or line or both	1	1	1	
	Bailer (if no electric or manual bilge pumping system)	1	1	1	1
	Bucket with lanyard (can also double as a bailer)	1	1	1	1
	Electric or manual bilge pumping system (if vessel has covered bilge or closed underfloor compartments other than airtight void spaces)	1	1	1	1
	Pair of oars with rowlocks or pair of paddles (if vessel is up to and including 4.8m)				
	Spare oar with rowlock or spare paddle				
	Hand held orange smoke signals	2	2	2	
	Hand held red distress flares	2	2	2	
	Lifebuoy (if vessel is more than 8m but less than 12m in length)	1	1	1	1
	Lifebuoy (if vessel is more than 12m in length)	2	2	2	2
	Dinghy or liferaft (if vessel is more than 12m in length)	1	1		
	Compass	1			
	Marine radio	1			
	Red star parachute distress rocket	1			
	Registered EPIRB	1			

OFF-THE-BEACH SAILING YACHT				
	Coastal offshore (>2nm from coast)	Coastal inshore (<2nm from shore)	Enclosed (bays and estuaries)	Inland (rivers, lakes and dams)
 Lifejacket (per person on board/towed)	Type 1	Type 1 or 2	Type 1 or 2	Type 1 or 2
 Approved fire extinguisher				
 Waterproof buoyant torch				
 Anchor and chain or line or both				
 Bailer (if no electric or manual bilge pumping system)	1 if vessel is not self-draining without intervention from the crew			
 Bucket with lanyard (can also double as a bailer)				
 Electric or manual bilge pumping system (if vessel has covered bilge or closed underfloor compartments other than airtight void spaces)	1	1	1	1
 Pair of oars with rowlocks or pair of paddles (if vessel is up to and including 4.8m)				
 Spare oar with rowlock or spare paddle				
 Hand held orange smoke signals	2			
 Hand held red distress flares	2			
 Lifebuoy (if vessel is more than 8m but less than 12m in length)				
 Lifebuoy (if vessel is more than 12m in length)				
 Dinghy or liferaft (if vessel is more than 12m in length)				
 Compass	1			
 Marine radio	1			
 Red star parachute distress rocket	1			
 Registered EPIRB	1			

MINIMUM SAFETY EQUIPMENT REQUIREMENTS FOR MECHANICAL, SAIL AND HUMAN POWERED VESSELS

HUMAN POWERED VESSELS (INCLUDING KAYAK, CANOE, RAFT AND ROWING BOAT)				
	Coastal offshore (>2nm from coast)	Coastal inshore (<2nm from shore)	Enclosed (bays and estuaries)	Inland (rivers, lakes and dams)
	Lifejacket (per person on board/towed)	Type 1, 2 or 3	Type 1, 2 or 3	Type 1, 2 or 3
	Approved fire extinguisher			
	Waterproof buoyant torch	1		
	Anchor and chain or line or both			
	Bailer (if no electric or manual bilge pumping system)	1	1	1
	Bucket with lanyard (can also double as a bailer)			
	Electric or manual bilge pumping system (if vessel has covered bilge or closed underfloor compartments other than airtight void spaces)	1	1	1
	Pair of oars with rowlocks or pair of paddles (if vessel is up to and including 4.8m)			
	Spare oar with rowlock or spare paddle	1		
	Hand held orange smoke signals	2		
	Hand held red distress flares	2		
	Lifebuoy (if vessel is more than 8m but less than 12m in length)			
	Lifebuoy (if vessel is more than 12m in length)			
	Dinghy or liferaft (if vessel is more than 12m in length)			
	Compass	1		
	Marine radio			
	Red star parachute distress rocket			
	Registered EPIRB	1		

		STAND UP PADDLEBOARD		FUNBOAT AND PEDALBOAT
		Coastal offshore (>2nm from coast)	All other waters	All waters
	Lifejacket (per person on board/towed)	Type 1, 2 or 3	Type 1, 2 or 3 >400m from shore	Type 1, 2 or 3
	Approved fire extinguisher			
	Waterproof buoyant torch	1		
	Anchor and chain or line or both			
	Bailer (if no electric or manual bilge pumping system)			
	Bucket with lanyard (can also double as a bailer)			
	Electric or manual bilge pumping system (if vessel has covered bilge or closed underfloor compartments other than airtight void spaces)			
	Pair of oars with rowlocks or pair of paddles (if vessel is up to and including 4.8m)			
	Spare oar with rowlock or spare paddle			
	Hand held orange smoke signals	2		
	Hand held red distress flares	2		
	Lifebuoy (if vessel is more than 8m but less than 12m in length)			
	Lifebuoy (if vessel is more than 12m in length)			
	Dinghy or liferaft (if vessel is more than 12m in length)			
	Compass	1		
	Marine radio			
	Red star parachute distress rocket			
	Registered EPIRB	1		

LIFEJACKETS

WEARING LIFEJACKETS ON RECREATIONAL VESSELS

Victoria has requirements for wearing different types of lifejackets according to the vessel type and type of waterway travelled (coastal, enclosed or inland waters). Under marine safety law, you are required to wear a specified type of lifejacket when in an open area of a recreational vessel that is underway based on the vessel type/length and the type of waters it is in (refer to table on page 55).

Wearing lifejackets on recreational vessels when in an open area of a vessel that is underway

The Marine Safety Regulations require all occupants of the following vessels to wear a specified lifejacket when in an open area of a vessel that is underway:

- power driven vessels up to and including 4.8m in length
- off-the-beach sailing yachts
- PWCs
- canoes, kayaks, rafts and rowing boats
- stand up paddleboards when more than 400m from shore
- pedal boats and fun boats
- kiteboards and sailboards
- recreational tenders.

Wearing lifejackets on recreational vessels during times of heightened risk

The Marine Safety Regulations require all occupants of vessels listed above to wear a specified lifejacket (see table on page 55 for lifejacket types) at times of heightened risk when in an open area of a vessel that is underway. This also applies to occupants of the following vessels:

- yachts (including monohull, trailerable and multihull yachts, excluding off-the-beach sailing yachts)
- power driven vessels greater than 4.8m and less than 12m.

HEIGHTENED RISK

Heightened risk is not only limited to when there is significant likelihood that the vessel may capsize or be swamped by waves or the occupants of the vessel may fall overboard or be forced to enter the water. It also occurs when there is a restriction on the ability to anticipate such an event, such as when a hazard can not be seen.

The Marine Safety Regulations specify that a vessel will face heightened risk, in the following circumstances:

- crossing or attempting to cross an ocean bar or operating within a designated hazardous area
- being operated by a person who is the only person on board the vessel
- being operated during the period commencing one hour after sunset and ending one hour before sunrise
- disabled
- where no safety barriers, lifelines, rails, safety harnesses or jacklines are in use on a yacht
- being operated during a period of restricted visibility
- operating in an area where a warning, that is current, of the following kind has been issued by the Bureau of Meteorology:
 - gale warning
 - storm force wind warning
 - hurricane force wind warning
 - severe thunderstorm warning
 - severe weather warning.



When are you the only person on the vessel?

You are considered to be the only person on the vessel when you are boating with a child or someone of limited strength or mental capacity.

If there is another person on board with you, they must be capable of:

- manoeuvring the vessel around to get you if you are in the water
- pulling you back on board if you fall out of the vessel and cannot help yourself
- returning the boat to the jetty or beach if you are incapacitated
- calling for help when necessary.

Are you at risk?

When launching and retrieving, vessels are often in restricted areas and the risk of being nudged by another vessel or bumping into a jetty or other object is high. Wear your lifejacket while you're launching, retrieving and in the vicinity of jetties and piers. It will keep you afloat if you are knocked out of the vessel.

What does under way mean?

Under way means not at anchor, made fast to the shore, or aground. If you are drifting you are under way. Vessels travelling at any speed are at risk of being involved in an incident where the occupants suddenly and unexpectedly enter the water.

While launching or retrieving, a vessel being driven off or onto a trailer may be considered to be under way.

What is meant by an open area of a vessel?

Recreational vessels (excluding kayaks and canoes)

- All deck areas including coach roofs, superstructures, open fly bridges, trampolines and nets, but excluding areas within a rigid deckhouse, a rigid cabin, a rigid half-cabin or a securely enclosed under-deck space.
- For vessels without a deck, the whole vessel, excluding areas within a rigid cabin, rigid halfcabin or a securely enclosed space.

Kayaks and canoes

- The whole vessel.

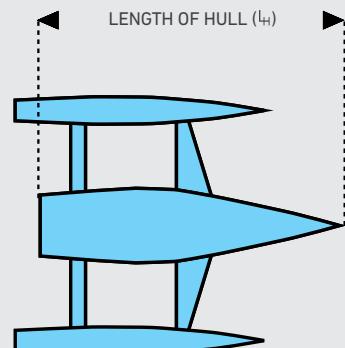
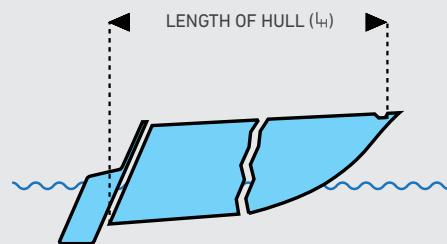
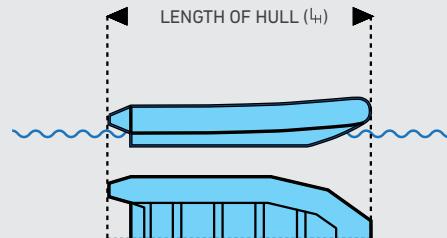
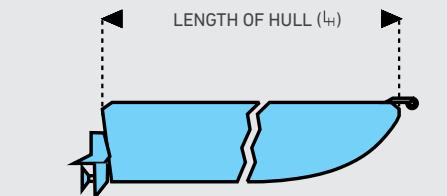


It is extremely difficult (and in some circumstances impossible) to put a life jacket on if you are in the water. Avoid this situation by wearing your life jacket and requiring the occupants in your vessel to do so.

LENGTH OF VESSEL

The measurement of length of vessel is a measure of the length of the hull (LH) and is required to determine the safety equipment requirements for your vessel. This includes all structural and integral parts of the craft, such as wooden, plastic or metal stem or sterns, bulwarks and hull/deck joints. This length excludes removable parts that can be detached in a non-destructive manner and without affecting the structural integrity of the craft, for example, outboard motors, swimming platforms, bowsprits, fittings or attachments.

This measure is consistent with the International Standard ISO 8666 "Small Craft – Principal Data Standard". This is also the measure to be used when calculating vessel carrying capacity and when registering the vessel with VicRoads.



TYPES OF LIFEJACKET

Lifejacket type 1

A lifejacket type 1 will provide a high level of buoyancy and keeps the wearer in a safe floating position. They are made in high visibility colours with reflective patches.



IS YOUR LIFEJACKET TYPE 1 LEGAL?

A lifejacket type 1 must comply with at least one of the following standards:

- Australian Standard AS 1512-1996 "Personal flotation devices - Type 1"
- Australian Standard AS 4758.1-2008 "Personal flotation devices - Part 1: General requirements" relating to Level 275 lifejackets
- Australian Standard AS 4758.1-2008 "Personal flotation devices - Part 1: General requirements" relating to Level 150 lifejackets
- Australian Standard AS 4758.1-2008 "Personal flotation devices - Part 1: General requirements" relating to Level 100 lifejackets
- Australian Maritime Safety Authority Marine Orders Part 25, Schedule 1, Section 4.1 "Life-jackets", as formulated, issued, prescribed or published from time to time
- Uniform Shipping Laws Code, Section 10, Appendix R ("Coastal Lifejackets and Lifejacket Lights and Whistles"), as formulated, issued, prescribed or published from time to time
- International Standard ISO 12402-2:2006(E) "Personal flotation devices - Part 2: Lifejackets, performance level 275 - Safety requirements"
- International Standard ISO 12402-3:2006(E) "Personal flotation devices - Part 3: Lifejackets, performance level 150 - Safety requirements"
- International Standard ISO 12402-4:2006(E) "Personal flotation devices - Part 4: Lifejackets, performance level 100 - Safety requirements"
- European Standard EN399 – 1993 Lifejackets – 275N, or
- European Standard EN396 – 1993 Lifejackets – 150N, or
- European Standard EN395 – 1993 Lifejackets – 100N
- one of the following recognised standards for personal flotation devices, or types of personal flotation devices, that has been approved by a recognised appraiser:
 - National Standard of Canada CAN/CGSB-65.11-M88 "Personal Flotation Devices", as formulated, issued, prescribed or published by the Canadian General Standards Board from time to time, and National Standard of Canada CAN/CGSB- 65.15-M88 "Personal Flotation Devices for Children", as formulated, issued, prescribed or published by the Canadian General Standards Board from time to time
 - Underwriters Laboratories Standard UL 1180 "Fully Inflatable Recreational Personal Flotation Devices" as formulated, issued, prescribed or published by Underwriters Laboratories from time to time
 - Section 401 of New Zealand Standard NZS 5823:2005 "Specification for Buoyancy Aids and Marine Safety Harnesses and Lines", as formulated, issued, prescribed or published by Standards New Zealand from time to time
- any standard or specifications approved by the Safety Director.

Lifejacket type 2

A lifejacket type 2 is a buoyancy vest. It will provide less buoyancy than a lifejacket type 1 but is sufficient to keep your head above water. Like a lifejacket type 1 they are manufactured in high visibility colours.



IS YOUR LIFEJACKET TYPE 2 LEGAL?

- Australian Standard AS 1499-1996 “Personal Flotation Devices Type 2”
- Australian Standard AS 4758.1 “Personal flotation devices Part 1: General requirements” relating to Level 50 lifejackets
- European Standard EN 393: 1993 E Superseded “Lifejackets and personal buoyancy aids – Buoyancy aids 50N

Lifejacket type 3

This is a buoyancy garment. They have similar buoyancy to a lifejacket type 2 but are manufactured in a wide variety of colours and are shaped or equipped for particular activities.



IS YOUR LIFEJACKET TYPE 3 LEGAL?

A lifejacket type 3 must comply with:

- Australian Standard AS 4758.1 “Personal flotation devices—Part 1: General requirements” relating to Level 50 Special Purpose lifejackets.

WHAT TYPE OF LIFEJACKET MUST I WEAR?

The information below details the requirements for which specified lifejackets must be worn.

Lifejacket types are described in Schedule 1 of the Marine Safety Regulations and can be found at www.legislation.vic.gov.au.

Specified lifejackets and where they must be worn

Vessel type	Coastal waters	Enclosed waters	Inland waters
Powerboat up to and including 4.8m in length	Type 1 (for each person on board or being towed)	Type 1 (for each person on board or being towed)	Type 1, 2 or 3 (for each person on board or being towed)
Powerboat more than 4.8m but not more than 12m in length*	Type 1 (for each person on board or being towed)*	Type 1 (for each person on board or being towed)*	Type 1, 2 or 3 (for each person on board or being towed)*
Personal watercraft	Type 1, 2 or 3 (for each person on board or being towed)	Type 1, 2 or 3 (for each person on board or being towed)	Type 1, 2 or 3 (for each person on board or being towed)
Towed sport	A person who is being towed by a vessel must wear a lifejacket at all times.		
Recreational tender	Type 1	Type 1 or 2	Type 1, 2 or 3
Off-the-beach sailing yacht	Type 1, or 2 if within 2nm from coast	Type 1 or 2	Type 1 or 2
Yacht	Type 1	Type 1 or 2	Type 1 or 2
Kiteboard or sailboard	Type 1, or 2	Type 1, 2 or 3	Type 1, 2 or 3
	A person operating a kiteboard or sailboard no more than 400m from the shore is not required to wear a lifejacket		
Canoe, kayak, rowing boat, raft, stand up paddleboard, pedal boat or fun boat	Type 1, 2 or 3	Type 1, 2 or 3	Type 1, 2 or 3
	A person operating a stand-up paddleboard no more than 400m from the shore is not required to wear a lifejacket		
Scuba or hookah diving equipment (underwater breathing apparatus of a kind that is self-contained (scuba) or is surface supplied)	A person who is wearing, or in the process of donning or removing, diving equipment is not required to wear a lifejacket.		

* This lifejacket wearing requirement applies at times of heightened risk.

LIFEJACKETS ON CHILDREN

The Marine Safety Act requires that a master of a recreational vessel or a hire and drive vessel must ensure that every person aged less than 10 years old who is in an open area of a vessel that is under way, wears a lifejacket at all times. Penalties apply when lifejackets are not worn.

When choosing a lifejacket for a child, care must be taken to ensure that the garment fits the child and that small children do not slip out when they are in the water.

Where possible, a children's lifejacket that features a crotch strap is strongly recommended, as it assists in holding the child in the jacket.

LIFEJACKETS ON BABIES AND TODDLERS

Transport Safety Victoria does not recommend taking infants on board a recreational boat.

Because of the varying weight distribution of babies it is difficult to design jackets which have flotation in the right places to keep babies afloat. The lifejackets currently available for newborns up to 10 kilograms may not provide a proper fit or perform as expected. You must be sure you know the lifejacket you have works for your infant. Transport Safety Victoria recommends that children not be exposed to any risk on a boat on the water.

SERVICING OF LIFEJACKETS

Lifejackets must be maintained in accordance with manufacturers' recommendations to ensure the devices continue to operate the way they are supposed to. Refer to the manufacturers' website or information provided at time of sale for full servicing details relevant to your lifejacket.

It is essential to periodically check the lifejacket's fabric, flotation, zippers, buckles, waist belts and all fastenings for signs of excessive wear, cracking, fraying or anything to indicate possible loss of strength or flotation.

SERVICING OF INFLATABLE LIFEJACKETS

The Marine Safety Regulations require that inflatable lifejackets be maintained in accordance with manufacturers' recommendations and requirements to ensure the devices continue to operate the way they are supposed to in an emergency. Most manufacturers provide a maintenance schedule including self checking and periodic servicing by an approved service agent.

BOBBINS AND CARTRIDGES

Transport Safety Victoria advises that some automatic inflatable jackets are equipped with sacrificial water-soluble bobbins or sacrificial paper element cartridges. They are prone to accidental inflation if exposed to humid conditions for any length of time.

If you have any concern, contact the manufacturer or place of purchase.



**Remember that your lifejacket is a life saving device.
Care for it as though your life depends on it. One day it might.**



FIRE FIGHTING



FIRE EXTINGUISHERS

The Marine Safety Regulations require that portable fire extinguishers are kept on all recreational vessels (excluding PWCs) where any fuel is carried, or equipped with an electric start motor, gas installation or fuel stove.

A portable fire extinguisher is a dry chemical type fire extinguisher:

- (a) that complies with Australian Standard AS/NZS 1841.1 "Portable fire extinguishers—Part 1: General requirements" and Australian Standard AS/NZS 1841.5 "Portable fire extinguishers—Part 5: Specific requirements for powder type extinguishers" and
- (b) that is rated in accordance with Australian and New Zealand Standard AS/NZS 1850 "Portable fire extinguishers - Classification, rating and performance testing".

The master of a recreational vessel that carries fuel on board, or that is equipped with an electric start motor, gas installation or fuel stove, must ensure that:

- the vessel is equipped with the number of portable fire extinguishers prescribed (see table below)
- at least one of those portable fire extinguishers is of the minimum nominal capacity prescribed (see table below)
- one of the portable fire extinguishers positioned adjacent to the engine and fuel carrying spaces of the vessel and is readily available
- when more than one fire extinguisher is required to be carried they must be located in separate positions on the vessel.

NUMBER OF PORTABLE FIRE EXTINGUISHERS REQUIRED TO BE CARRIED ON A VESSEL

Vessel size	Number required
Less than 8m	1 (of the minimum nominated capacity)
8 to 12m	2 (one of the minimum nominated capacity)
More than 12m	3 (one of the minimum nominated capacity)

MINIMUM CAPACITY OF PORTABLE FIRE EXTINGUISHERS ON A VESSEL

Volume of flammable or combustible liquids that are able to be carried on vessel	Minimum nominal capacity of fire extinguisher
Less than 115 litres	0.9 kg
115 to 350 litres	2.0 kg
351 to 695 litres	4.5 kg
More than 695 litres	9.0 kg

FIRE BLANKETS

Under the Marine Safety Regulations if a vessel has cooking facilities located within an enclosed space on the vessel, the master of the vessel must ensure that a fire blanket is positioned in a conspicuous location and that it is readily accessible to a person using the cooking facilities.

A fire blanket must comply with Australian Standard AS/NZS 3504 "Fire blankets".

FIXED FIRE EXTINGUISHING SYSTEMS

A fixed fire extinguishing system fitted to an enclosed engine compartment of a vessel can be used instead of one of the required portable fire extinguishers provided the capacity of the system is the same or greater than the required nominal capacity.

A fixed fire extinguishing system must comply with International Standard ISO 9094 "Small craft - Fire protection" Part 1 and Part 2.

Example – 4.2 metre vessel

Michelle's 4.2m aluminium boat with a 25HP engine has a fuel carrying capacity of 40 litres. The minimum fire fighting requirements are:

- One 0.9kg dry chemical fire extinguisher (vessel less than 8m, with less than 115 litre fuel capacity)
- One bucket with lanyard.

Example – 8.5 metre vessel

John's 8.5m sports cruiser can carry 390 litres of fuel (including cooking gas) and has a galley below deck. The minimum fire fighting requirements are:

- Two dry chemical extinguishers, one of which must be a 4.5kg dry chemical fire extinguisher (vessel 8 to 12m, with 351-695 litre fuel capacity)
- One fire blanket
- One bucket with lanyard.



BUCKET WITH LANYARD

A bucket with lanyard must be carried on all powered recreational vessels (excluding PWCs). A bucket with lanyard allows water to be used to extinguish fires derived from wood, paper or plastics.

The lanyard should be long enough to safely lower the bucket over the side of the vessel and retrieve full of water.

The bucket should be of a size that is able to be hoisted over the side of the vessel full of water. A ten litre bucket full of water weighs about ten kilograms.

The bucket may also be used as a bailer to bail water out of the vessel.

Example – 13.5 metre vessel

Paul's 13.5m cabin cruiser can carry 850 litres of fuel (including cooking gas) and has a galley below deck. The vessel is fitted with a fixed fire extinguishing system of 22kg capacity in the engine compartment.

The minimum fire fighting requirements are:

- An approved fixed fire fighting system of at least 9kg capacity
- Two dry chemical fire extinguishers of any nominal size
- One fire blanket
- One bucket with lanyard.

DISTRESS SIGNALLING EQUIPMENT

FLARES

Many recreational vessels are required to carry two hand-held red distress flares and two hand-held orange smoke signal flares, of an approved type, when operating on coastal and enclosed waters.

Hand-held orange smoke signals, hand-held red distress flares and red star parachute distress rockets kept on the vessel for use must not exceed the manufacturers' expiry date.

Distress flares have a life of three years – you must ensure the flares are replaced when their use-by-dates are reached.

Orange smoke signals, which can be seen for up to 4km (10km by aircraft) should be used in daylight to pinpoint your position.



Red distress flares, which have a visibility range of 10km, are designed for use at night but can also be seen during the day.



A **red star parachute** distress rocket is designed to fire a single red star to a height of approximately 300m. The star burns while falling for at least 40 seconds and can be seen from the greatest distance due to its intensity and elevation from sea level.



Hand-held orange smoke signals and hand-held red distress flares must comply with Australian Standard AS 2092 "Pyrotechnic marine distress flares and signals for pleasure craft".



1. Check instructions



2. Remove cap



3. Pull yellow knob upward and outward



4. Hold out and leeward



Red star parachute distress rockets are required by many vessels when venturing greater than 2nm from the coast

USING AND MAINTAINING FLARES

Always delay using flares until you can see an aircraft, or until people on shore or in other boats are in visual range.

- Keep flares away from fuel and combustibles.
- Ensure flares are stored in an accessible but dry place, as they attract moisture.
- Be prepared – ensure everyone on board your vessel knows where the flares are stored and how to use them.
- Ensure that you carefully follow the activation instructions of all flares.

EMERGENCY POSITION INDICATING RADIO BEACON (EPIRB)

The Marine Safety Act requires that all recreational vessels venturing more than 2 nautical miles (nm) from the coast are required to carry a registered, current emergency position indicating radio beacon (EPIRB). However, carrying an EPIRB is sensible on any waterway.

An EPIRB is waterproof, will float upright for best signal transmission and has a lanyard to attach it to you. It is also advisable to purchase a model of EPIRB which features a strobe light and GPS enhancement to provide searchers with a smaller search area.

Once activated, an EPIRB transmits a distress signal for at least 48 hours that can be detected by satellite and overflying aircraft. EPIRB alerts detected off Victoria are received at AMSA in Canberra and acted upon

immediately. An EPIRB should be activated in situations where human life is in grave and imminent danger and should remain on until otherwise instructed by emergency services.

The EPIRB should be accessible but stowed in a way to avoid accidental activation.

Check the battery and registration expiry date on your EPIRB before taking out your vessel. When testing an EPIRB, strictly follow the manufacturer's instructions.

Compulsory registration of your EPIRB is free. Contact the Australian Maritime Safety Authority at www.amsa.gov.au or call 1800 406 406. A registration sticker will be issued to attach to your EPIRB and remains current for two years from the date of issue. Registration details must be updated when any of your registered details change, or every two years.

An EPIRB must:

- (a) comply with Australian and New Zealand Standard AS/NZS 4280.1 "406MHz satellite distress beacons—Part 1: Marine emergency position-indicating radio beacons (EPIRB) (IEC 61097-2:2002, MOD)" and
- (b) be registered with the Australian Maritime Safety Authority (AMSA) with up-to-date information and have affixed to it a proof-of-registration sticker from AMSA.



Digital 406MHz EPIRBs are required to be registered with the Australian Maritime Safety Authority. Registration is free but must be renewed every two years.

Analogue 121.5MHz beacons are no longer acceptable for use in the maritime environment.

PERSONAL LOCATOR BEACON (PLB)

A PLB is smaller and more convenient to carry than an EPIRB. A PLB may not float in an orientation for good signal transmission or at all. It may not have a lanyard and is required to operate for only 24 hours.

A PLB is not an EPIRB and does not meet the legislative requirements for the carriage of EPIRBs.

EXPIRED FLARES AND EPIRBs

Approved smoke signals and distress flares and some EPIRBs have expiry dates clearly marked. Expired flares should not be carried on your vessel. Flares can become dangerous and unpredictable as they age.

Boat owners should dispose of their expired flares at selected police stations. Contact your local police station for specific locations.

Expired EPIRBs should be disposed of carefully to avoid accidental activation. Expired EPIRBs may be disposed of at Battery World stores for a small fee. You may also wish to contact the manufacturer for alternative disposal instructions.

COMPASS

Under the Marine Safety Act most classes of recreational vessels operating on coastal waters (power boat, sail powered vessel, kayak, canoe, raft and rowing boat, and stand up paddle board) are required to be equipped with a compass if the vessel operates more than 2 nautical miles from the coast.

A magnetic compass is the most important piece of direction finding equipment a master can have, particularly in bad visibility or out of sight of land. Electronic equipment such as a GPS and battery operated hand held devices are useful supplements but can fail when electrical power runs low.



Keep magnetic compasses away from large metal objects such as engines or anchors to avoid inaccurate measurements.

ANCHOR

An anchor is an important item of equipment. The minimum safety equipment table on pages 44-49 shows when an anchor must be carried. When at anchor, attention is required to ensure the safety of the craft as changes in wind and sea conditions can affect the holding power of the anchor.

The anchor with chain or line or both chain and line must be of sufficient strength and durability to secure the vessel and must be appropriate for that purpose in the area of operation of the vessel. The chain or line or combination must be securely attached to both the anchor and the vessel at all times.

It is strongly recommended to use a length of chain between the anchor and line. The purpose of the chain is to keep the stock or shank of the anchor down as near as possible to parallel to the sea bottom. As a guide, the length of chain should be approximately equal to the length of the vessel, but not less than 3m.

Further information regarding safe anchoring may be found on page 80.



Anchors are required to be carried on many vessels operating on coastal and enclosed waters.

MARINE RADIO

A marine radio is:

- A radio operating on 27MHz marine radio channels
- A radio operating on MF/HF marine radio frequencies
- A radio operating on VHF marine radio channels

For more information visit www.acma.gov.au

Marine radios provide a means of calling for assistance if a vessel is in distress, monitoring and/or updating rescue operations, and positioning a vessel by radio direction finding. Operators may be able to check weather conditions through one of the many marine coast stations and limited coast stations.



A marine radio is required on many vessels when venturing further than 2nm from the coast. Refer to safety equipment tables on pages 44-49 to understand when marine radio is required.

MARINE RADIO OPERATOR CERTIFICATION

A Marine Radio Operators Certificate of Proficiency is required to transmit using MF/HF or VHF radio.

No certificate is required to operate 27MHz equipment.

Further information and a copy of the Marine Radio Operators Handbook can be obtained from the Australian Maritime College on (03) 6335 4869 or visit their website at amc.edu.au/omc.

Note: A new more appropriate marine radio qualification for VHF marine radio operators operating within Australian territorial waters (12NM) has just been approved and it is proposed to be included as a new mandatory qualification in late 2015. For further information visit: acma.gov.au/marineradioqualifications

RADIO OPERATING PROCEDURES

Use of standard procedures as described in the handbook avoids confusion and shortens transmitting time. Unnecessary chatter can mask a weak call for help and one day that may be your call. Only the recommended phonetic alphabet should be used in bad conditions.

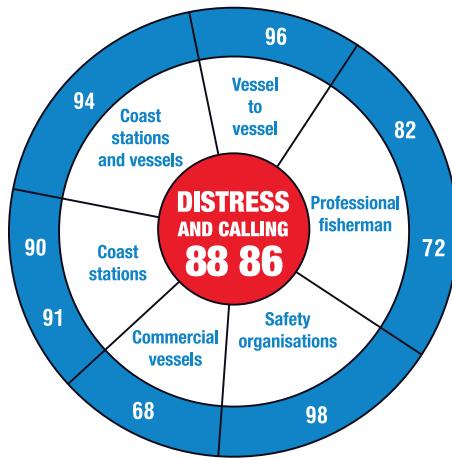
Your two-way radio is your communication lifeline so it is important to remember that you:

- do not transmit unnecessarily
- listen before transmitting and avoid interfering with other stations
- use one of the following calling distress channels:
 - 27MHz channel 88
 - VHF channel 16, or
 - HF frequencies 4125, 6215 and 8291KHz
- maintain best contact channel or frequency and be guided by the coast or limited coast station when sending distress messages
- arrange to switch to a working channel once you have made contact with the person you called for non-distress messages
- always use your call sign or the name of the vessel for identification – use of given names or surnames is not permitted
- keep messages brief and clear
- be familiar with the type and syntax of emergency, urgency and safety messages.
- state your position, the nature of the distress, the time afloat, the type of vessel and the number of people involved if making a distress call
- stop transmitting when requested to do so by a coast station.

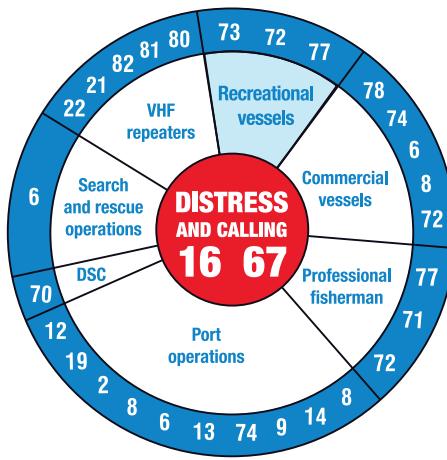
DISTRESS CHANNELS/FREQUENCIES

Radio type	Channel/frequencies
VHF	16 (67 alternative)
27MHz	88 (86 alternative)
HF (frequency)	4125, 6215 and 8291 kHz

27MHz marine radio channels



VHF marine radio channels



For emergency radio use and messages see chapter 12 about emergency procedures.

For marine weather radio broadcast information see chapter 5 about trip preparation.

Before you sit your test to get your marine licence, would you like to check your knowledge about the information in this handbook? We have sample test questions available.

Download the questions from the Transport Safety Victoria website
www.transportsafety.vic.gov.au.

To have a copy mailed to you call **1800 223 022** or email
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CHAPTER 5

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PLANNING YOUR TRIP

Good preparation gives the master of a vessel the best opportunity to make good decisions while on the water.

The master of a recreational vessel should always undertake a safety assessment of the particular vessel and its intended operation. In addition to the minimum safety equipment carried in accordance with the regulations, the vessel should carry any other additional safety equipment that may be appropriate to control risks to acceptable levels.

LET SOMEONE KNOW BEFORE YOU GO

Always let someone know where you are going, your point of departure and when you plan to return. If your plans change, let someone know.

Also give them a description or photo of your vessel, vessel registration number and details of the number of passengers on board. This will assist emergency services, should the need arise.

Download your trip details form from the Transport Safety Victoria website at www.transportsafety.vic.gov.au or obtain a trip details fridge magnet from Transport Safety Victoria.

Update your EPIRB registration when your details change or every two years from the date of issue of an EPIRB registration sticker.

Register or update your EPIRB details for free with the Australian Maritime Safety Authority (AMSA) at www.amsa.vic.gov.au/beacon or call 1800 406 406.

I've gone boating

HERE ARE MY TRIP DETAILS FOR (DATE): 01 / 07 / 2012

I am departing at: 5.00 am pm (please circle)

I am departing from: St Kilda Marina

My trip intentions are: Fishing at Middle Brighton

I will return no later than: 12.00 am pm (please circle)

Number of people onboard (including me): Two

Weather expected: late changes, 20 degrees, 10-15 knots SE

Keep a whiteboard marker handy to enter fresh trip details and **ALWAYS** inform a relative or a friend of your boating plans by leaving them with this card. If you fail to return by the time specified they should **CALL 000 IMMEDIATELY**



Ensure there is a PFD for everyone on board, appropriate for the area of operation.



If things do go wrong, stay with your boat.

PLACE PICTURE OF YOUR BOAT HERE TO ASSIST POLICE WITH VESSEL IDENTIFICATION IN THE EVENT OF A SEARCH

VALUABLE INFORMATION ON THE BACK

LIFE JACKETS SAVE LIVES!



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TRANSPORT
SAFETY
VICTORIA

NAVIGATION PLANNING

- Get information about the area you are operating in, i.e. how to get there, how long it will take, how to get back, and what safety or specialist equipment you may need.
- Check the sea conditions, tide levels, current, tidal and river flows, weather and bar conditions as appropriate.
- Find out about any local dangers and special rules or regulations for the area.
- Coastal navigation courses are highly recommended.
- Carry the appropriate chart for the area in which you will be navigating.

INTERSTATE BOATING

When boating interstate you are required to adhere to the safety and operating rules imposed by that state. Victorians visiting other states or territories should contact the relevant local authority prior to travel to ensure compliance with safety equipment and other operating requirements.

For information regarding NSW waters that adjoin Victoria, see page 6.

LOCAL KNOWLEDGE

In addition to complying with the appropriate Victorian boating legislation and requirements, it is important to find out if there are any special local rules. Seek advice on local conditions and carry the appropriate chart of the area in which you will be navigating. Maps are available showing shallow areas by figures or colours and giving accurate details of launching ramps and anchorages. Contact Transport Safety Victoria for more information about local waterway managers and local requirements.

The specific operating rules for each Victorian waterway are set out in the Vessel Operating and Zoning Rules (VOZR). An up to date copy of the rules can be accessed on the Transport Safety Victoria website at www.transportsafety.vic.gov.au.

MARINE WEATHER INFORMATION

Base your decision to go out on the water on the knowledge of what weather conditions your boat, you and others on your boat can handle.

Weather forecasts and warnings produced by the Bureau of Meteorology are available on all media. It is vitally important to be aware of the current weather conditions in the area you plan to boat in, and also how conditions will develop over the course of your trip – and a bit longer, just in case.

FIVE VITAL CHECKS

There are five things to take note of when planning your boating trip:

1. Are warnings current for your boating area?
2. Are there weather conditions affecting safe navigation and comfort?
3. What are the wind trends?
4. What are the wave conditions?
5. When is the next high and low tide?"

INTERNET

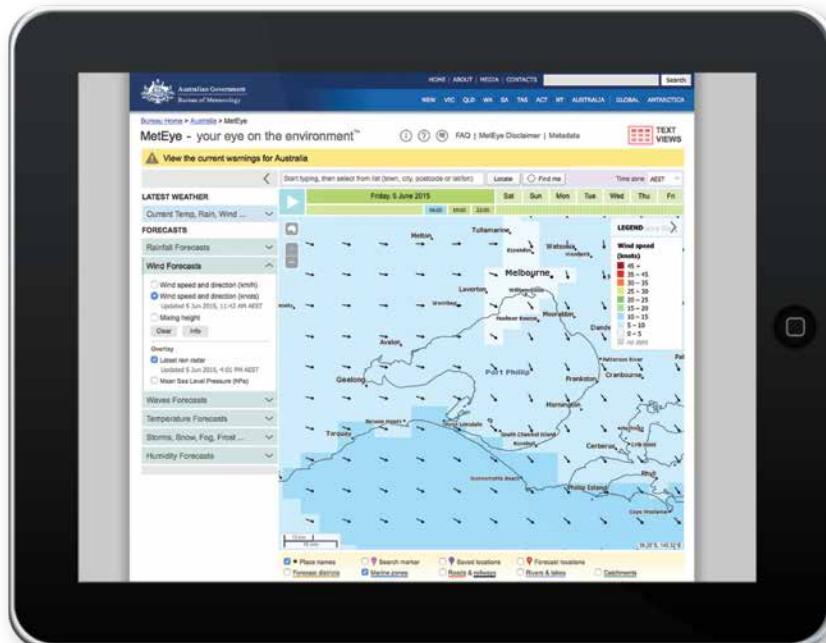
Visit www.bom.gov.au/marine for the latest weather charts, satellite and radar images as well as warnings and forecasts for the next four days. This site also provides links to tidal information, sunset and sunrise times as well as full schedules for all radio and phone services.

Meteye

MetEye shows the official forecasts produced by the Bureau of Meteorology in an interactive map. 6x6 km gridded forecasts are available for wind, waves, weather and much more in three hourly increments, for up to seven days ahead.

Marine Lite

For boaters in areas of marginal mobile phone coverage, or whose offshore access is limited to satellite internet communication channels, text only webpages of the Bureau's Marine forecasts and warnings are provided at bom.gov.au/marine/lite.



RADIO WEATHER SERVICES

27MHz	There are weather services provided on 27MHz by some limited coast stations.
VHF Coast Radio Melbourne will:	<ul style="list-style-type: none"> Broadcast Victorian coastal waters forecasts on VHF channel 67 at 06:48 and 18:48 Eastern Standard Time. Broadcast an initial weather warning on VHF Channel 67 as soon as possible after receipt. Broadcast current weather warnings at 00:48, 02:48, 04:48, 06:48, 08:48, 10:48, 12:48, 14:48, 16:48, 18:48, 20:48, 22:48 eastern standard time (EST) on VHF channel 67 following initial broadcast until notice of cancellation is received by facsimile from the Bureau of Meteorology. Broadcast notices of cancellation of weather warning as soon as possible after its receipt and at the next scheduled Victorian coastal weather forecast broadcast. <p>NB: Broadcasts of, and cancellation broadcasts of, Weather Warnings will be preceded by a SECURITE announcement on VHF channel 16.</p> <ul style="list-style-type: none"> Some limited coast stations broadcast weather forecasts at various times.
MF/HF	<ul style="list-style-type: none"> The Bureau of Meteorology broadcasts weather forecasts to eastern Australia from Charleville on: <p>8176 and 12365kHz – all hours</p> <p>4426 and 16546kHz – all day (7am-6pm)</p> <p>2201, HF 6507kHz – by night (6pm-7am)</p> Scheduled broadcast times for Victorian coastal waters are: 0130, 0530, 0930, 1330, 1730 and 2130 EST (add one hour for EDST). Warnings are broadcast every hour starting 0000 EST. Some limited coast stations broadcast weather forecasts at various times.

TELEPHONE WEATHER SERVICES

For the latest marine forecasts on Port Phillip and Western Port, dial 1900 926 110 for the cost of 77c per minute.

For Victorian Coastal Waters forecasts, dial 1900 969 930.

For the latest warnings, dial 1300 659 217 for the cost of a local call.

WEATHER HAZARDS AND CONDITIONS

Check the weather forecasts and warnings, which are regularly updated and give warnings of strong winds and gales. Sudden squalls are not easy to predict in Victoria, so keep a sharp lookout and regularly check the horizon for telltale clouds or whitecap waves.

If caught out in bad weather head for sheltered water, for example, the shore or the protected side of an island. If possible, head into the wind and waves at a steady speed.

Squalls usually last only for a short period. It is often best to ride them out, keeping your bow into the wind and maintaining a speed sufficient to give you steering. Don't let the vessel drift side on to the wind and waves, your vessel may take on water or capsize.

If your vessel does not have power or anchor, drag a sea anchor from the bow, keeping the bow into the wind and waves. A sturdy bucket or oar on a rope may make an adequate sea anchor.

GETTING THERE AND BACK

Weather conditions on Victorian waters can change very quickly and a hot day can deteriorate into a cold and windy one.

Be prepared by:

- taking warm clothing to put on
- knowing what to do in reduced visibility
- understanding what the clouds tell you about wind direction and strength
- having a global positioning system (GPS), charts and maps to help you navigate
- recognising that weather changes can create a situation of heightened risk.



A lifejacket is to be worn on certain recreational vessels and hire and drive vessels during a time of heightened risk.

This includes operating a vessel during a period of restricted visibility; or operating a vessel in an area where the Bureau of Meteorology has issued a current:

- gale warning
- storm force wind warning
- hurricane force wind warning
- severe thunderstorm warning, or
- severe weather warning.

Refer to page 50 for more information about heightened risk.



If you do capsize, stay with your boat until help arrives. Your boat will be more visible than an individual in the water.

WIND

Wind blows roughly parallel to lines (isobars) on the weather map, clockwise around LOWS and anticlockwise around HIGHS. The closer together the isobars, the stronger the wind.

Hills, valleys and islands funnel winds, causing stronger and gustier winds and producing localised shifts in direction. This sometimes occurs over most of Port Phillip in an easterly wind. The Latrobe Valley funnels the air, producing quite strong winds over most of Port Philip, while lighter winds occur in the far northern portion. This effect often occurs on inland waterways that are surrounded by hills.

KNOW WHAT THE FORECAST IS TELLING YOU

Wind can change direction and strength very quickly. It is important to understand the following terms when reading a weather report:

- **Wind speed** over the water is given in knots. When wind is mentioned in forecasts it refers to the average wind over a 10 minute period at a height of 10m.
- **Gusts** are increases in wind speed lasting for just a few seconds. They typically range 30–40 per cent greater than the average wind speed.
- **Squalls** are a sudden large increase in wind speed (usually accompanied by a change in wind direction) that lasts several minutes and then suddenly dies.

The Bureau of Meteorology issues a:

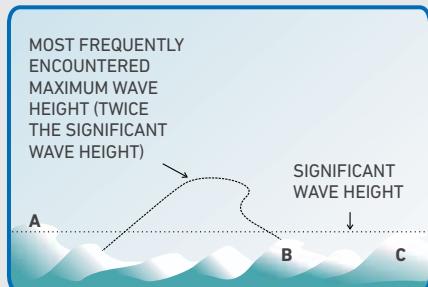
Strong wind warning	For winds averaging more than 25 knots and up to 33 knots
Gale warning	For winds averaging 34 knots and up to 47 knots
Storm warning	For winds averaging 48 knots or more

Transport Safety Victoria strongly advises operators of small craft not to go boating when any of the above weather warnings have been issued.

The Bureau of Meteorology's marine forecasts describe mean conditions over reasonably large areas such as Northern Bass Strait or Port Phillip. Reference to squalls and thunderstorms alert vessel operators to adverse weather conditions expected for short periods of time within the forecast period. Forecasts may not reflect local conditions where topographic influences might channel or block wind and affect wave development. Vessel operators should be familiar with local variations in certain wind streams before venturing out – ask the locals for advice.

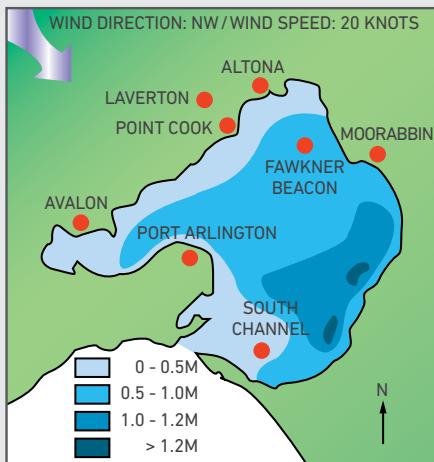
WAVES

Wave heights mentioned in forecasts refer to significant wave height – being the average of the highest one third of waves. Maximum wave heights can be twice the average height, especially in regions where tides and currents oppose wind-driven wave direction.



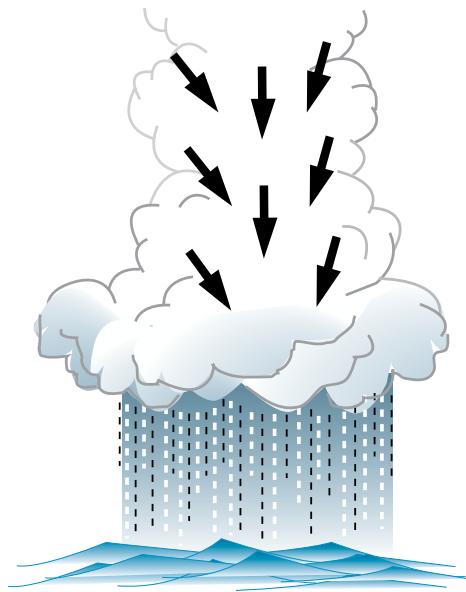
Wind against tide and current can create hazardous sea conditions

EXAMPLE OF WAVE HEIGHTS ON PORT PHILLIP



THUNDERSTORMS

Thunderstorms are a serious hazard for boats. Cumulonimbus or thunderstorm clouds (see diagram) produce strong, gusty winds, which blow out from the front of the storm. If you see this type of cloud, you should watch which way it is moving – clouds often move in different directions from the wind at the surface. If it looks like it will pass over or within a few kilometres of you, head for shore immediately.



LET SOMEONE KNOW BEFORE YOU GO

Download your trip details form from the Transport Safety Victoria website at www.transportsafety.vic.gov.au or obtain a trip details fridge magnet from Transport Safety Victoria.

SAFETY HINTS

- Ensure you are carrying the prescribed safety equipment.
- Ensure you wear a lifejacket where required and consider wearing a lifejacket at all times while operating a vessel.
- Know the local factors that influence sea conditions and know where to reach shelter quickly.
- Learn how to read the weather map.
- Be aware that the weather map in the morning newspaper was drawn the day before.
- Always check the latest forecast and warnings before going to sea and know what conditions exceed your safety limits.
- Beware of rapidly darkening and lowering cloud – squalls may be imminent.
- When at sea, listen to the weather reports on public or marine radio.
- Be flexible – change your plans if necessary.
- Be prepared to head back to shore regardless of how far you have travelled.
- Be prepared for changes in conditions and take warm clothing.



If stranded on the water,
stay with your boat.

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CHAPTER 6

SAFE OPERATIONS

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SAFE OPERATIONS

A master of a recreational vessel must take reasonable care for his or her own safety and for the safety of persons who may be affected by the master's acts or omissions, when the master is carrying out vessel operations.

A passenger on board a vessel must take reasonable care for his or her own safety and comply with a direction the master of the vessel has given in order for the master to operate the vessel safely, or in order for the master or passenger to comply with a requirement imposed under the Marine Safety Act or the regulations. A passenger on board a vessel must not intentionally or recklessly interfere with or misuse anything provided to them by the master of the vessel.

KEEP A LOOKOUT

The operator is responsible at all times for keeping a proper lookout by sight, hearing and any appropriate means available. The operator must be fully aware of the boating environment, especially in bad weather, restricted visibility or darkness.

Seek advice on local conditions - it is advisable to carry the appropriate chart of the area you will be navigating. There are also detailed maps available which provide further information about local conditions.

PENALTIES

Boating is meant to be enjoyable and no one wants their trip spoilt by incidents or accidents. The masters of all vessels must have a marine licence (and PWC endorsement where applicable) to operate on any Victorian waters. Penalties exist for those vessel operators who do not follow the rules. On-the-spot infringements may be issued.

In addition to any penalty that may be imposed on the person for any hoon offence, a vessel may be embargoed, impounded, immobilised or seized.

Of course, in the case of serious safety offences, court action or cancellation of your marine licence can also occur.

As a responsible vessel operator, you should follow the rules outlined in this handbook.

PASSENGERS/CREW

- Ensure you have sufficient skills, experience and number of crew on board for the vessel and conditions prevailing and forecast.
- Ensure you have the right safety equipment for all persons onboard including correctly fitted lifejackets.
- Provide a safety briefing for all passengers/crew including:
 - what to do in an emergency
 - what safety equipment is carried
 - where safety equipment is stored
 - how safety equipment works.

FATIGUE

There are many factors which may contribute to fatigue while boating. Boat and engine noise, sun, glare, vibration, wave action, wind, temperature and the availability of food and water all add to the effects of a long day awake on the water.

Fatigue will affect your ability to make good decisions and compromise your capacity to be a responsible master.

EXPOSURE AND DEHYDRATION

It is essential to protect yourself and others aboard your vessel from the elements such as heat, cold, sun, wind, rain and water.

The effects of exposure can be reduced by using simple precautions such as:

- drinking water
- eating snacks
- dressing for the conditions
- using sunscreen
- carrying additional clothes on board
- carrying rain clothes.

ALCOHOL AND DRUGS

Alcohol affects your sensory abilities and decreases your reaction time. As with driving a car, boating skills may be affected by alcohol and drugs. For example:

- depth perception – being able to see other boats and to judge speed and direction
- peripheral, colour and night vision
- balance and coordination
- comprehension and concentration
- increased fatigue.

Loss of judgment and coordination and increase in reaction time can lead to the inability to react appropriately to a dangerous boating situation.

'Drink driving' laws are strictly enforced with the objective of safety for all.

Victoria Police officers are empowered to use breathalysers to help detect operators exceeding alcohol limits. Heavy penalties apply to offenders.

Alcohol increases body-heat loss, reducing your survival time if you fall overboard. It also increases the pulse rate, leading to rapid exhaustion in survival situations.

Prescribed medications and other drugs can also pose problems. Many preparations for seasickness, hay fever and other allergies can make you feel drowsy or easily confused.

Before you go boating, check with your doctor or chemist on the possible side effects of any drugs you take.



The prescribed concentration of alcohol means:

(a) in the case of a person who is under the age of 21 years and who is in charge of a regulated recreational vessel or regulated hire and drive vessel under way (which for this purpose includes at anchor), any concentration of alcohol present in the blood or breath of that person; and

(b) in the case of any other person -

- (i) a concentration of alcohol present in the blood of that person of **0.05 grams per 100 millilitres of blood**; or**
- (ii) a concentration of alcohol present in the breath of that person of **0.05 grams per 210 litres of exhaled air**.**

Please refer to the *Marine (Drug, Alcohol and Pollution Control) Act 1988 (Vic)* for details on alcohol and drug related offences, including an accompanying officer offence.

HOON LAWS

A person must not operate a recreational vessel (including PWCs) or hire and drive vessel at a speed or in a manner which is dangerous to the public, birds and marine animals.

A member of the police force may exercise the power to seize, impound or immobilise a vessel, if he or she believes on reasonable grounds that a recreational vessel is being or has been used in the commission of a relevant offence.

In addition, Victoria Police and Transport Safety Victoria have the power to embargo and prohibit the use and operation of a vessel.

FIRE PREVENTION

Vessel fires may start during fuelling procedures, or just after, when fumes are still present.

Fuel safety is the critical factor in the prevention of fire. Smell is often the best method of detecting fumes or spillage. Take sensible steps to minimise the risk.

Under the Marine Safety Regulations the master of a recreational vessel or a hire and drive vessel must not permit the vessel to be fuelled at a wharf, jetty or pier if there are passengers on board the vessel.

The master of a recreational vessel or a hire and drive vessel must not permit the vessel to be restarted after being fuelled at a wharf, jetty or pier if there are passengers on board the vessel.

Causes of fire may include:

- fuel leaking from the vessel's fuel system or engine
- defective equipment
- carelessness
- incorrect operation of equipment.

On the vessel:

- do not refuel with persons on board
- after refuelling, always start the vessel before boarding passengers
- after refuelling, ventilate bilges by opening hatches and operating a blower fan if fitted
- carry the prescribed fire fighting equipment
- do not stow fire extinguishers in the areas of potential fire risk, for example, next to fuel caddies
- check fire extinguishers regularly
- fit a smoke alarm (if you sleep on board) and check it regularly
- keep a fire blanket in the galley and stow it away from the stove
- correctly install fuel and LPG by using a suitably qualified fitter
- regularly check perishable fuel lines for wear and tear and carry a spare
- fit a reminder notice above gas appliances, for example, 'turn off gas when not in use'
- fit detection devices for gas and fuel vapour and check regularly
- keep the vessel neat and tidy and free of oil or fuel in the bilges
- don't fit curtains above the stove
- ensure all fire equipment on board complies with the relevant standards. Refer to chapter 4 for more information.

When refuelling:

- do not refuel with persons onboard
- keep the fuel nozzle earthed and touching the filler neck
- know where firefighting equipment is located within the marina and how to use it
- don't leave shore-supply electrical cables wound on a reel or drum, as the cables may overheat
- when refuelling, use a wide-mouthed funnel and clean up any splashes (fuel spills will make the deck dangerously slippery)
- if possible, fill the fuel tanks away from the vessel in a well ventilated, no smoking area
- secure spare fuel in a tightly capped, secure container
- don't keep oily or fuel-soaked rags onboard
- ensure moorings can be undone rapidly if a fire should occur.

After refuelling, you must not allow passengers on board the vessel until the vessel has been restarted.

For more information visit
www.transportsafety.vic.gov.au.



SAFE LOADING

Overloading is dangerous and seriously reduces the stability and safety of your vessel. Overloading your boat reduces freeboard, making your boat less able to resist waves and more likely to be swamped.

The Marine Safety Regulations require that a person must not act as the master of a recreational vessel or a hire and drive vessel that is overloaded.

A recreational vessel is overloaded if the number of persons on board the vessel exceeds the maximum number of persons specified by the manufacturer of the vessel on a capacity plate or an Australian Builder's Plate (ABP) attached to the vessel. The Marine Safety Regulations require that an ABP be attached to certain vessels.

The ABP required on vessels constructed or modified after 2009 states the maximum motor size, load and number of persons permitted on board. For vessels less than 6m in length the ABP also states whether the vessel will float level if swamped or capsized.

ABP Standard means the "National Standard for the Australian Builders Plate for Recreational Boats" adopted by the Australian Transport Council and notified in the Commonwealth of Australia Gazette.

Vessels with a fly bridge are prone to capsizing if the fly bridge is overloaded.

Under the Marine Safety Regulations a person must not act as the master of a recreational vessel or a hire and drive vessel fitted with a fly bridge if the number of persons being carried on the fly bridge exceeds one quarter of the number of people (rounded up to the nearest whole number) permitted to be carried on the vessel.

Unless specified by the manufacturer, the maximum number of people which can be carried in a recreational vessel is represented in the table on this page.

VESSELS LESS THAN 6M IN LENGTH

Length of vessel	Maximum passengers
Less than 3m	2 people
3m to less than 3.5m	3 people
3.5m to less than 4.5m	4 people
4.5m to less than 5m	5 people
5m to less than 5.5m	6 people
5.5m to less than 6m	7 people
6m and more	Refer to the Marine Safety Regulations and the manufacturers recommendations

If the recreational vessel is a decked canoe or kayak or is otherwise fitted with individual cockpits, the number of persons carried on the vessel must not exceed the number of individual cockpits in the vessel irrespective of the age of the person.

The Marine Safety Regulations require that when calculating the number of people on board a vessel for the purposes of determining whether the vessel is overloaded and not to be operated:

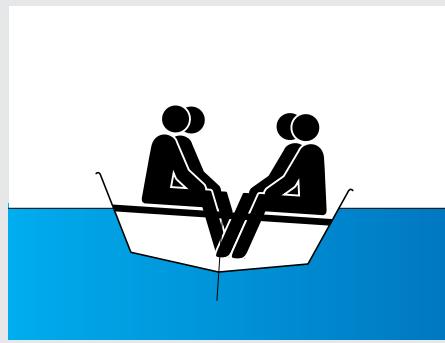
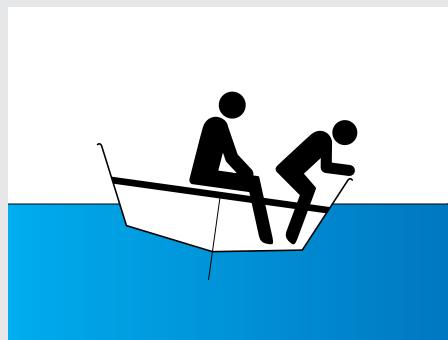
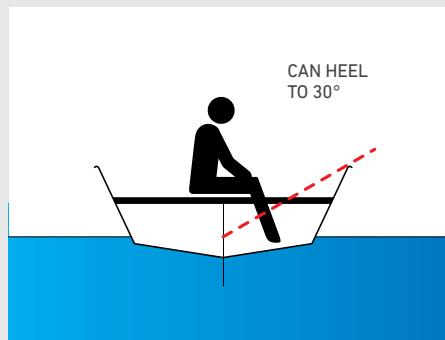
- (a) children aged less than 1 year are not to be included
- (b) children aged more than 12 months but less than 12 years will be counted as 0.5 persons.

WARNING

The maximum carrying capacity stated in the table on this page is determined for vessels operating in good conditions. A reduction in the maximum number of persons must be made in adverse conditions or when on the open sea. Capacity of a person is assessed at 75kg per person with an additional allowance of 15kg per person for personal gear. A reduction in the number of persons must be made when equipment and supplies exceed total weight allocated.

VESSEL STABILITY

Overloading your boat seriously reduces stability making your boat more likely to capsize.



Overloading a fly bridge will further reduce the stability of any vessel, making it much more likely to capsize once heeled.

BOAT HANDLING

ANCHORING

Anchoring is not only a normal part of boating, it is also an important safety measure in an emergency. Anchoring may keep the vessel safely positioned head on to heavy conditions and it can also allow you to retain your position and not be swept away or on shore.

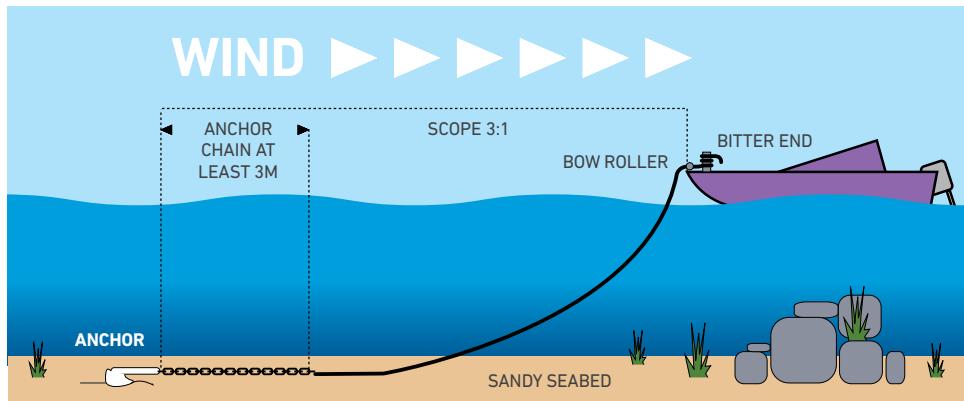
ANCHORING TIPS

The anchor with chain or line or both chain and line must be of sufficient strength and durability to secure the vessel and must be appropriate for that purpose in the area of operation of the vessel. The chain or line or combination must be securely attached to both the anchor and the vessel at all times.

- Choose your anchor, chain and/or line carefully to suit your vessel requirements, the depth of water, and the bottom type you are likely to operate in.
- Always lower the anchor rather than hurling the anchor and chain overboard, this may lead to tangling.



The use of a sliding buoy system in anchor recovery is not recommended. If the anchor is to foul, large forces may be transferred to the vessel leading to capsise or damage to the vessel.



- As a rule of thumb, the line paid out should be at least three times the depth of water. This distance should be increased to five to one in rougher seas.
- Regularly check the anchor is not dragging by inspecting the rope tension and monitoring your position.
- Never drop anchor from the stern or midship, you may risk swamping the vessel.

The Vessel Operating and Zoning Rules (VOZR) state that anchorage of vessels is not permitted in certain areas.

- It is illegal and dangerous to anchor in shipping channels or transit lanes.
- It is illegal and dangerous to tie up vessels to navigational aids.



IT IS ILLEGAL AND DANGEROUS TO TIE UP TO NAVIGATIONAL AIDS AND TO ANCHOR IN CHANNELS

LAUNCHING

Launching a boat from a trailer and retrieving it (loading) are important skills. In each instance, the steps to be taken must be carefully planned and executed to ensure safety and to avoid damage to the vessel.

- Make pre-launch preparations well away from the ramp.
- If you're launching a trailer sailor, check for overhead wires before you rig or move your boat.
- Line up the car and trailer so that the backing process will be straight and as short as possible.
- Study the ramp and surrounding water area for any hazards.
- Do not remove the trailer winch or safety chain until your vessel is in the water.
- Secure lines to the bow and stern, then either float or motor off with care.

TAKING OFF AND BERTHING

- Insist that everyone aboard is within the boat itself, not on the side decking, and especially not on the bow or where they will obstruct your view.
- Move off slowly. The same goes for returning to jetty, mooring or ramp.
- Always check for trailing ropes that may be caught in your propeller.

RETRIEVING

- Align the centre of your vessel to that of the trailer; proceed carefully up the trailer until the winch or safety chain can be secured.
- If you are not confident in driving your vessel on to the trailer, you can secure a line to both the bow and stern to control the boat as you use the winch.
- Vacate the ramp as quickly as possible and park in the appropriate preparation area to finish securing the vessel for towing.

Remember, secure your vessel to the trailer using both the winch and safety chain.



INLAND WATERS

Boaters operating on inland waters should take particular care as these waterways may change dramatically due to water level variation as a result of flood, drought, seasonal variation and irrigation. Changes in water levels on waterways can result in hazards such as trees, other submerged objects and shallow water.

Boaters should take note of the following:

- take account of the water levels and submerged hazards – if in doubt, slow to 5 knots or less
- seek out local knowledge on conditions and hazards
- always maintain a good lookout
- ensure the motor kill switch is attached to the driver
- take note of signage at boat ramps
- ensure the vessel is equipped with the required safety equipment and that it is in good working condition and easily accessible
- do not overload the vessel.

Lakes and water storage dams can become very rough in windy conditions. Always be on the lookout for changing weather conditions and obtain an up to date weather report prior to heading out.

Many inland waters have very cold water temperatures even during warmer months of the year. Prepare for immersion by carrying and wearing warmer clothing when appropriate. If, on falling into cold water, you involuntarily gasp and breathe in water and you are wearing a lifejacket, it will ensure you come back to the surface.

CROSSING OCEAN BARS

The Marine Safety Regulations define an ocean bar as an area in state waters comprising a ridge of sand or gravel near or slightly above the surface of the water that:

- is located near or at the entrance to the sea from a bay, inlet, river or other waterway
- extends across the mouth of that bay, inlet, river or waterway or parallel to the shore
- that is permanent or occurs from time to time.

This includes all waters within 500m of the ridge.

The Marine Safety Regulations require that a lifejacket must be worn on certain recreational vessels and hire and drive vessels during times of heightened risk, such as when crossing or attempting to cross an ocean bar.

EXERCISE EXTREME CAUTION

- Conditions on a bar change quickly and without warning.
- No amount of experience or boat type makes crossing a bar safe.

OBTAI N LOCAL KNOWLEDGE

Contact local water police, port authorities, waterway managers, fishing and boating clubs, tackle shops, chandleries and commercial operators for advice on bar conditions and peculiarities. Assess weather conditions and obtain tide information. Observe local operators crossing the bar but do not cross if you are not adequately prepared.

BE AWARE

- Night crossings are more hazardous.
- Vessels attempting to cross a bar at, or near, low water are more likely to experience adverse conditions.

PREPARING TO CROSS A BAR

- Ensure deck openings, hatches and doors are securely battened down.
- Stow all loose gear and put on lifejackets if you aren't already wearing them.

CROSSING A BAR

- Monitor the:
 - prevailing wind
 - wave pattern timing, i.e. look for sets
 - course to follow
 - bar traffic
 - alternate routes.
- Motor slowly toward the breaking waves looking for the area where waves break least or not at all.
- If there seems no break in the waves, slowly power through each oncoming wave.
- Ensure that you are not going too fast over each wave as this would cause the vessel to 'bottom out' if it dives heavily.
- If possible, make the crossing with the waves slightly on the bow so that the vessel gently rolls over the crest of each wave.
- When approaching from sea, increase power of the vessel to catch up to the bigger set of waves and position the vessel on the back of a wave. Do not surf down the face of a wave.



CROSSING BARS CAN BE DANGEROUS.

MAKE SURE YOU ARE ADEQUATELY PREPARED.

IF IN DOUBT, DON'T GO OUT.

For more information on crossing bars, visit www.transportsafety.vic.gov.au.

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CHAPTER 7

TOWED WATER SPORTS

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TOWED WATER SPORTS



Towed water sports such as waterskiing, wakeboarding, tubing and kneeboarding are popular recreational boating activities. Vessels engaged in waterskiing often travel at high speeds, so vessel masters and crew members should arm themselves with appropriate skills and acquaint themselves with the local waterway rules. The rules are generally displayed on noticeboards at each waterway and are contained in the notices published in the Victorian Government Gazette and the Vessel Operating and Zoning Rules (VOZR). Further information may be obtained from the relevant waterway manager (municipal council, water authority, etc) or from Transport Safety Victoria.

An up to date copy of the VOZR may be accessed on the Transport Safety Victoria's website at www.transportsafety.vic.gov.au.

OBSERVER

The Marine Safety Regulations require that a person must not act as the master of a vessel engaged in towing a person on any State waters unless in addition to the master there is on board the vessel aged 12 years old or more who is in a position to observe the person being towed and communicate with the master of the vessel.

TOWING

The Marine Safety Act and the Marine Safety Regulations require that:

- towing is only permitted in the period from one hour before sunrise to one hour after sunset
- a maximum of three persons can be towed at any one time. When towing multiple skiers it is safer to have tow lines of the same length
- a person being towed is required to wear a type 1, 2 or 3 lifejacket at all times. Types 2 or 3 are recommended



- once back in the vessel, the person who has been towed must wear the appropriate lifejacket for that vessel on the waterway being used if required
- the holder of a restricted marine licence must not act as the master of a vessel while the vessel is towing
- the master must not cause or allow the vessel to tow a person unless the person is wearing a lifejacket,

Speed and distance restrictions apply to the vessel as well as anything being towed.

The vessel must have carrying capacity for the master and observer. You should consider seating for any person/s being towed.

Inflatable items being towed tend to be pulled to the outside of turns as they have little grip on the water, resulting in high speeds and little directional control during turns. Multiple occupants of inflatable devices have an increased risk of injury due to collisions between occupants.

ACCESS LANES

An access lane is an area set aside for vessels engaged in towed water sports, such as water-skiing, to access the shore at unrestricted speed while towing.

Vessels may only operate in an access lane for the purpose of dropping off or picking up a water-skier or accessing a launching ramp located within the access lane.

Vessels must follow the correct direction of operation when entering or leaving the access lane – keep as far right as possible or, if the lane specifies travelling in a clockwise direction, keep as far left as possible

Vessels in an access lane must give way to vessels that are proceeding past the access lane or are currently in, or about to enter, the lane to drop off a water skier.



HAND SIGNALS

The following hand signals are commonly used to communicate when participating in towed watersports.

HAND SIGNALS			
1. Speed up Thumbs up		5. Cut motor Slashing hand across throat	
2. Slow down Thumbs down		6. OK after all Hands clasped over the head	
3. Turn Circling motion above head followed by pointing in the direction of the turn		7. Stop Hand raised with fingers outstretched	
4. Back to shore Pat top of head		8. All OK An 'O' made with the thumb and index finger	

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CHAPTER 8

PERSONAL

WATERCRAFT

(PWC)

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PERSONAL WATERCRAFT (PWC)

A personal watercraft is defined under the Marine Safety Act as any recreational vessel that is of a kind that is required to be registered and that:

- (a) has an engine that is used for propulsion
- (b) has a fully enclosed hull
- (c) does not retain water on it if it capsizes, and
- (d) is designed to be operated by a person standing, sitting astride or kneeling on the vessel but not seated within the vessel.

PWC describes an aquascooter, jet bike, jet ski, wave runner, ski free, motorised surfboard and any similar vessel that has an engine used for propulsion. They are also known as 'powerskis'.

Regardless of the type of PWC, it is important for operators to remember that these are just another type of vessel and are required to be operated within the rules pertaining to 'powerboats'. However, PWCs are generally much more powerful and manoeuvrable than traditional powerboats and, in the wrong hands, can present a danger to the operator and to other people using our waterways.

Like any other boaters, PWC operators should make sure that they know the boating rules applicable to any waterway they intend to use (see the Vessel Operating and Zoning Rules for particulars) and the general rules as outlined in this guide. Always read signage placed at boat ramps and on beaches and check for local rules which may also apply specifically to PWCs.

LICENSING

The Marine Safety Act requires that the master of a PWC must hold a general marine licence with a PWC endorsement.

This licence must be carried at all times when acting as the master of a PWC.

The master of a PWC is required to take reasonable care for his or her own safety and the safety of persons who may be affected by the master's acts.

The requirement for an endorsement recognises the additional knowledge and skills required to act as the master of a PWC.

EDUCATION

PWC clubs and organisations will gladly introduce you to the sport and will assist with instruction and participation in recreation events.

Approved boating safety training courses are highly recommended for any person considering obtaining a marine licence. Transport Safety Victoria accredited training providers are listed on the Transport Safety Victoria website at www.transportsafety.vic.gov.au or call 1800 223 022.

REGISTRATION

The Marine Safety Act and the Marine Safety Regulations require that the owner of a PWC must ensure the vessel is operated in a safe condition and manner, and according to the conditions of registration in chapter 2 of this guide.

Keeping a PWC in good working order is not only common sense; it is a legal requirement. Look after your PWC so it looks after you – maintain it after each trip and have it regularly serviced.

All PWCs are required to be registered with VicRoads (who undertake marine license and registration services on behalf of Transport Safety Victoria) or through approved dealers.

The registration label must be fixed in a conspicuous position on the outside or upper part of the vessel.

The owner of a registered recreational vessel that is a personal watercraft must ensure that the identification mark that is assigned by the Safety Director for that vessel is painted or displayed in appropriate characters:

- (a) on each side of the hull of the vessel
- (b) forward of the beam
- (c) so that the highest part of each digit commences at a point no more than 25mm below the gunwale.

Appropriate characters means characters that are:

- (a) no less than 100mm high
- (b) in proportionate breadth, and
- (c) coloured in contrast to the surface on which they are displayed.

A person must not act as the master of a registered vessel on State waters unless an identification mark is painted or displayed on the vessel in accordance with the above.

These identification marks must take preference over decals and striping provided to decorate or customise the PWC.



SAFETY EQUIPMENT

Under the Marine Safety Regulations the operator or master and passengers (including anyone being towed) must wear an approved lifejacket type 1, 2 or 3 at all times on a PWC. It is recommended a type 2 be worn.

PWCs must also carry a waterproof buoyant torch at all times. A torch can be used to signal the shore or other vessels if you encounter difficulties.

A PWC must show the lights for a powerboat if operating at night. Note that a mast may be required for an all round white light to ensure the occupant does not obscure a sector of light from being visible.

A registered EPIRB is required on all vessels, including PWCs, if operating more than 2nm from the coast.

CARRYING CAPACITY

To determine the carrying capacity of your PWC, refer to the manufacturer's specifications.

TOWED WATERSPORTS

When engaged in towed watersports on a PWC, the rules for towed watersports must be followed including carrying an appropriate observer.

The PWC must have seating for the master and observer. You should consider having adequate seating for any person/s being towed.

SAFE SPEED

All vessels are required to travel at a safe speed at all times. The master of a PWC must constantly monitor the speed of the vessel to ensure that a safe speed is being maintained.

Without power a PWC has little or no steering control.

Follow speed signs and buoys marking waterway zones.

Remember, stunts and manoeuvres must be done well away from other people, other vessels and the shore. If you cannot maintain the minimum distances you must slow to 5 knots.

PWC operators are subject to hoon legislation. Refer to chapter 6 about safe operations for more information.



To travel 50 metres at 5 knots takes 19 seconds;
200m takes 1 minute 17 seconds,
500m takes 3 minutes 14 seconds.

KEEP YOUR DISTANCE

The main complaint received by marine authorities relates to the operation of PWCs close to other water users and/or the water's edge.

These are minimum safety distances and must be applied on all waterways unless a specific local rule provides otherwise.

A speed limit of 5 knots applies on:



All waters

- 50m from a person in the water
- 50m from another vessel, including other PWCs
- 100m from a diver below flag/flags/buoy/vessel.



Coastal and enclosed waters

- 200m from the water's edge
- 50m off a wharf, jetty, slipway, diving platform or boat ramp.



Inland waters

- 50m from the water's edge
- 50m from a fixed or floating structure.

AVOIDING ACCIDENTS

The boating rules made under the Marine Safety Act 2010 apply to the masters of all vessels including PWC riders.

The International Regulations for Preventing Collisions at Sea apply to drivers of all vessels including PWC riders.

A PWC must give way to:

- larger vessels operating in confined channels
- sailing vessels
- other vessels crossing from the right
- vessels being overtaken
- swimmers.



One of the most important rules is the requirement to keep a good look out at all times.

In particular, remember:

- in surf areas, swimmers may be hidden from view by waves and swell. Keep well away from areas where swimmers are likely to be present or slow right down
- do not cut blind corners—slow down
- if vision is affected by the sun or spray—slow down or stop
- keep well clear of anchored or moored vessels
- in channels and narrow stretches of water, you must operate on the right hand or starboard side
- on circular stretches of water, travel in an anticlockwise pattern
- navigation lights are required if your PWC is used on the water between sunset and sunrise.

PWC OPERATOR CONDUCT

The operators of PWCs have a legal duty to take reasonable care for his or her own safety and for the safety of persons who may be affected by their actions.

As a PWC operator, familiarise yourself with the local waterway rules and be aware that some areas are subject to certain operating restrictions. To help promote a safety culture, remind your friends and fellow riders of the rules.

Understand your role in assessing the risks associated with the operation of a PWC and be aware of the changing nature of the maritime environment.

PWCs are high profile recreational vessels that are fast, manoeuvrable, accelerate extremely quickly and can be noisy. This creates a perception of irresponsible hoon-like behaviour. Be mindful of this when operating in close proximity to swimmers, people on the beach and other waterway users.

A PWC operator should understand his/her limitations to perform in varying conditions. Be aware that the operators of other vessels may not be familiar with PWCs and how quickly you can approach, pass, turn and move away. You may need to adjust your riding techniques so that you don't alarm other boaters.

PWC operators should follow the vessel manufacturer's instructions and maintenance schedule and consider joining a PWC riders club or similar organisation to improve skills, knowledge and experience.

RULES

Rules may apply on many waterways in relation to the use of PWCs.

Contact Transport Safety Victoria for more information about the waterway manager of the area you plan to operate in on 1800 223 022 or at www.transportsafety.vic.gov.au.

SAFETY FIRST

What does it mean to be a safe and courteous rider?

Obey all boating regulations and signs



OPERATE AT A SPEED OF 5 KNOTS

- Within 50m of swimmers, other vessels and fixed or floating structures
- Within 100m of a diver below flag/flags
- Within 50m of water's edge (inland)
- Within 200m of water's edge (coastal and enclosed)



HOLD A MARINE LICENCE WITH PWC ENDORSEMENT



OBSERVE BOATING RULES



WEAR AN APPROVED PERSONAL FLOTATION DEVICE

- Wear footwear, goggles and gloves to suit the conditions
- Always attach the ignition cut-out (kill switch) safety lines to your wrist or lifejacket



CARRY A WATERPROOF BUOYANT TORCH



DON'T DRINK AND OPERATE A PWC



RESPECT THE PEACE – NOISE ANNOYS



KEEP A GOOD LOOK OUT AT ALL TIMES

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CHAPTER 9

OPERATING RULES

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NAVIGATION

Many collisions between vessels result from a lack of understanding of the rules of safe navigation. The information in this chapter is based on the requirements of the *International Regulations for Preventing Collisions at Sea* 1972 (COLREGS), Marine Safety Act and Marine Safety Regulations.

KEEPING A LOOK-OUT

Every vessel shall at all times maintain a proper look-out by sight and hearing as well as by all available means appropriate in the prevailing circumstances and conditions so as to make a full appraisal of the situation and of the risk of collision.

Safe navigation of a vessel requires you to observe the rules including handling of a vessel, knowing the limitations of your vessel, being aware of potential hazards and allowing for the actions of others, both reasonable and unreasonable.

IT PAYS TO TAKE CARE

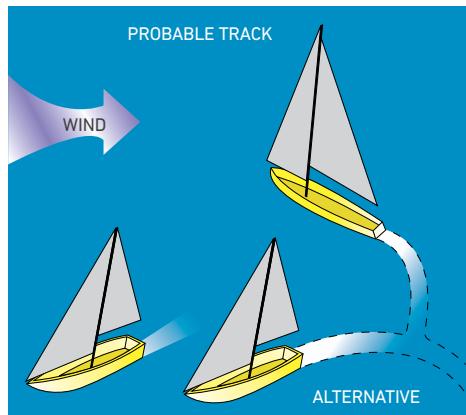
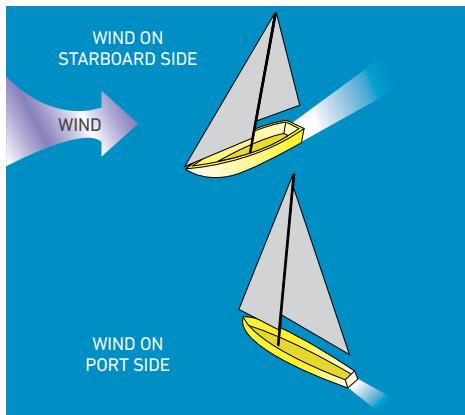
The master of a recreational vessel must take reasonable care for his or her own safety and for the safety of persons who may be affected by the master's acts or omissions. A master of a recreational vessel, when carrying out vessel operations, must not wilfully or recklessly place the safety of another person on board, or in the immediate vicinity of, the recreational vessel, at risk. Penalties apply.

A person must not operate a recreational vessel at a speed or in a manner which is dangerous to the public, having regard to all the circumstances in the case.

STEERING AND SAILING RULES

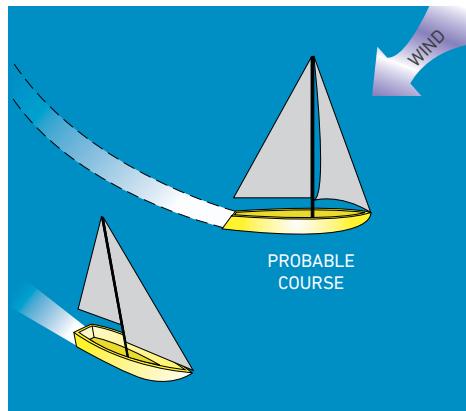
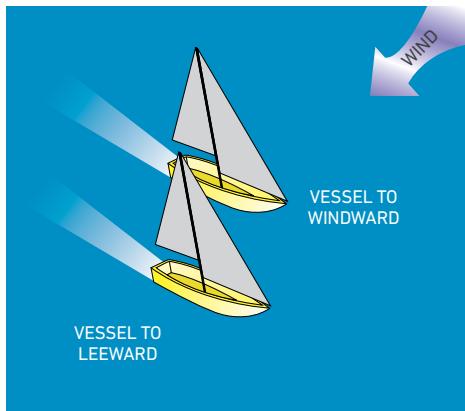
SAILING VESSELS APPROACHING ONE ANOTHER

When each has the wind on a different side, the vessel which has the wind on the port side shall keep out of the way of the other.



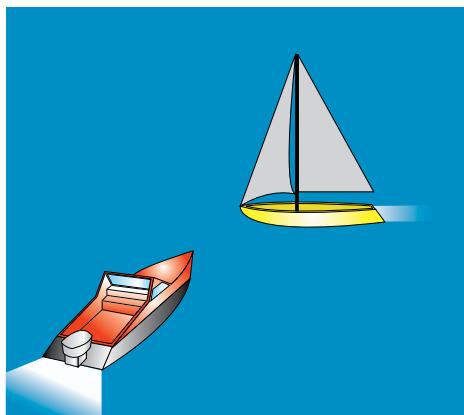
When each has the wind on the same side, the vessel which is to windward shall keep out of the way of the vessel which is leeward.

When a sailing vessel with the wind on its port side sees another sailing vessel to windward and cannot determine with certainty whether that sailing vessel has the wind on its port or its starboard, it shall keep out of the way of that other sailing vessel.



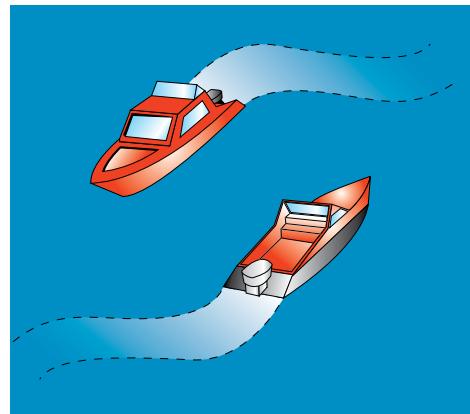
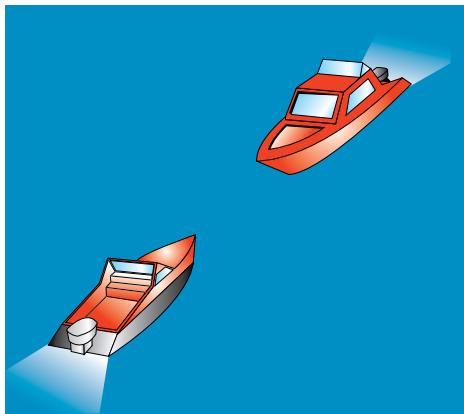
POWER AND SAIL VESSELS

Power-driven vessels shall keep out of the way of sailing vessels and rowing boats.



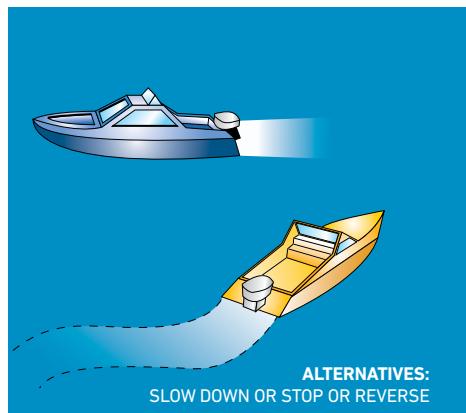
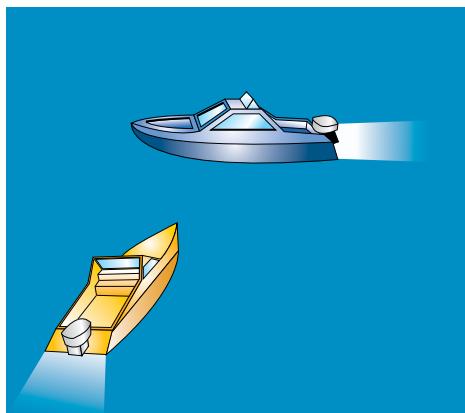
POWER-DRIVEN VESSELS MEETING HEAD-ON

Power-driven vessels meeting head-on or nearly head-on shall alter course to starboard so that each may pass on the port side of each other.



POWER-DRIVEN VESSELS CROSSING

When two power-driven vessels are crossing, the vessel with the other on its starboard side shall keep out of the way and avoid crossing ahead of the other vessel. The other vessel must maintain its course and speed until it is apparent that the vessel required to give way is not taking appropriate action.



NARROW CHANNELS OR CHANNEL APPROACHES

The master of a vessel under way in a channel or fairway must ensure that the vessel keeps to the right of the centre of the channel or fairway.

The master of a vessel under way in a channel or fairway must ensure that the vessel keeps out of the way of a vessel that can only safely navigate within the channel or fairway.

All vessels in narrow channels shall keep, as far as practicable, to the starboard side of the channel.

A vessel engaged in fishing shall not impede the passage of any other vessel navigating within a narrow channel or fairway.

A vessel shall not cross a narrow channel or fairway if such crossing impedes the passage of a vessel that can safely navigate only within such channel or fairway.

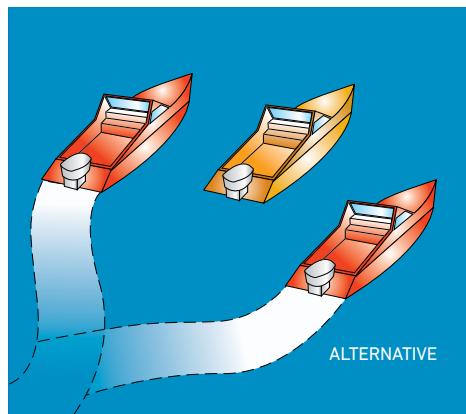
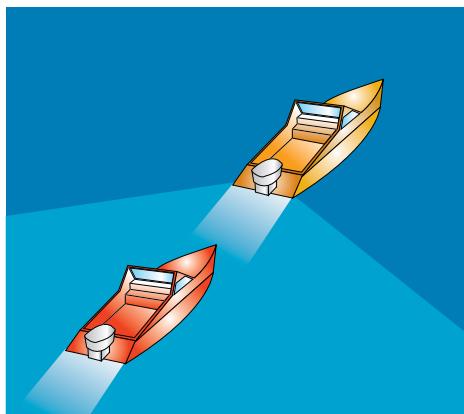
Any vessel shall, if the circumstances of the case permit, avoid anchoring in a narrow channel.

A sailing vessel and a vessel under 20m in length shall not impede the passage of any vessel which can safely navigate only within a narrow channel or fairway.



OVERTAKING VESSELS

All vessels, whether sail or power, overtaking another vessel when the boats are in sight of one another shall keep out of the way of the vessel being overtaken. That is, if a vessel is coming up with another from any direction, which is more than 22.5 degrees (in the shaded arc of the diagram below) abaft her beam, it shall be deemed to be the overtaking vessel until finally past and clear.



GENERAL NOTES

- If in doubt, assume that you are the overtaking vessel and keep clear. Alteration of course by either vessel does not relieve the overtaking vessel of the responsibility of keeping clear.
- If overtaking or approaching a vessel engaged in waterskiing always keep at least 50m from the skier and vessel combination
- Refer to the COLREGS for more information.

JOINT EMERGENCY ACTION

The giving-way vessel shall take early and positive avoiding action; make course/speed alterations obvious to the other vessel; avoid crossing ahead of the vessel with right of way; if necessary stop or reverse.

A series of five or more short and rapid blasts on a whistle or horn should be used to indicate that insufficient action is being taken to avoid collision.

The vessel with the right of way shall keep its course and speed. It should take avoiding action only if that taken by the giving-way vessel is insufficient. If necessary it should take whatever action is available to keep clear and avoid a collision.

If a power-driven vessel is taking action to avoid a collision with another power-driven vessel, it shall, if possible, avoid altering course to port. This action does not relieve the vessel operator of handling obligations.

STEERING AND SAILING RULES – RESTRICTED VISIBILITY

In restricted visibility, reduce to minimum speed. When hearing the fog signal of another vessel ahead, proceed with caution until danger of collision is over or stop until you have ascertained the danger.

FISHING VESSELS

All vessels not engaged in commercial fishing shall keep out of the way of vessels fishing with nets, lines or trawls or other gear that restricts manoeuvrability.

By day, a vessel engaged in commercial fishing is required to display two black cones (apexes together) where it can best be seen – this does not apply to recreational anglers.

By night, a commercial fishing vessel is required to display either of two light combinations:

- a red light over a white light, or
- a green light over a white light.

For examples see chapter 11.



RESPONSIBILITIES BETWEEN VESSELS

VESSELS UNDER POWER

Under the Marine Safety Regulations the master of a power-driven vessel (the give-way vessel) under way must ensure that the vessel keeps out of the way of:

- (a) a vessel constrained by its draught that is displaying lights or shapes to indicate that it is constrained by its draught
- (b) a vessel not under command that is displaying lights or shapes to indicate that it is not under command
- (c) a vessel restricted in its ability to manoeuvre that is displaying lights or shapes to indicate that it is restricted in its ability to manoeuvre
- (d) a fishing vessel engaged in fishing with nets, lines, trawls or any other fishing apparatus which restricts its ability to manoeuvre
- (e) a sailing vessel.

SAILING VESSELS

Under the Marine Safety Regulations the master of a sailing vessel (the give-way vessel) under way must ensure that the vessel keeps out of the way of:

- (a) a vessel constrained by its draught that is displaying lights or shapes to indicate that it is constrained by its draught
- (b) a vessel not under command that is displaying lights or shapes to indicate that it is not under command
- (c) a vessel restricted in its ability to manoeuvre that is displaying lights or shapes to indicate that it is restricted in its ability to manoeuvre
- (d) a fishing vessel engaged in fishing with nets, lines, trawls or any other fishing apparatus which restricts its ability to manoeuvre.



DON'T BOAT AROUND LARGE VESSELS



**LARGE VESSELS CANNOT
ALTER COURSE OR STOP**

Stay Clear



LARGE VESSELS

Recreational vessels have a responsibility to stay well clear of large vessels. Small craft are prohibited from impeding the passage of big ships. All boat operators should take note of the following:

- big ships operate at all times of the day and night
- the speed of a ship can be deceptive and may be in excess of 20 knots
- ships can weigh up to 100,000 tonnes and do not have brakes
- they cannot stop or change course suddenly and will travel a long distance before stopping
- a ship's blind spot can extend for many hundreds of metres ahead

- bow waves caused by a ship can swamp a small boat hundreds of metres away
- sailing vessels do not have right of way over big ships
- a ship may sound five short blasts on its whistle if it believes you are at risk of a collision. Small vessels must take evasive action immediately.

OPERATING AT NIGHT

Navigating at night can be hazardous. It is more difficult to judge speeds and distances at night or in restricted visibility than during the day. You must take every precaution. Vessels under way must show the proper lights from sunset to sunrise and in restricted visibility. You must also be able to tell from the lights of other vessels what they are, what they are doing and their direction of travel, so you can take the right timely action to avoid collision.



Occupants of vessels are required to wear lifejackets at all times when the vessel is under way and they are in an open area of the vessel.

You must familiarise yourself with navigation hazards, fixed or otherwise, lit and unlit, and whose position may occasionally change. Know where they are, from unlit buoys to rocks and shoals, and keep their position in relation to your vessel constantly in mind. Spotlights and torches may be used, but take care not to dazzle other people on the water, or yourself.

Always travel at a reduced speed to increase your safety margin. Keep a careful lookout around you for hazards and other vessels and, for extra reassurance, travel in company with another vessel or vessels where possible.

Only specified navigation lights should be shown at night. Any other lights onboard must not interfere with the range and arc of visibility of navigation lights.

A proper lookout is important when the background of bright lights on shore tends to obscure the lights of other vessels, buoys and marks. This is especially true in waters close to populated areas, such as the shore of Port Phillip where even larger ships can be hard to see.

OPERATING RULES

The operation of a vessel can often be affected by physical conditions such as the direction of the wind, the depth of the water and visibility. When operating any type of vessel, always allow plenty of time and space in which to carry out any manoeuvre.



Operators of small vessels should appreciate the difficulties of large ships manoeuvring in congested or restricted sea areas or ports and keep well clear of shipping.

The steering and safety rules and the lights and shapes which must be displayed are set out in the COLREGS.

A proper lookout must be kept by sight and hearing. The master must be fully aware of the boating environment, especially in bad weather, restricted visibility or darkness. Don't forget to look all around you – even behind you. The master is responsible at all times for keeping a proper lookout.

SPEED RESTRICTIONS

Speeding, together with drugs and alcohol, are key risk factors on Victoria's waterways. Victoria Water Police are empowered to use speed measuring devices to detect speeding vessels.

Speeds are limited by law for specific boating areas to meet local operational and safety conditions and usage. All speeds are measured in knots for the purpose of the Marine Safety Act and the Marine Safety Regulations.

Generally speaking, five knots is considered to be a fast walking pace.



**On ALL Victorian waters
a 5 knot speed limit applies
to boat operators and
PWC operators within
a distance of:**

- (a) 50m of a swimmer or bather
- (b) 50m of another vessel except where both vessels are either:
 - (i) engaged in competition or bona fide training organised in accordance with the rules of a state or nationally recognised water sporting association
 - (ii) within an exclusive area prescribed in a Schedule to a Notice which is set aside for a specific activity under clause 13 of the VOZRs in which the width of water prevents the keeping of distance
- (c) 100m of a vessel or buoy on which a 'diver below' signal corresponding to the International Code Flag 'A' is displayed – a white/blue flag.



In addition, on Victorian coastal and enclosed waters, or bays, a 5 knot speed limit applies to boat operators and PWC operators under the following conditions:

- (a) within 200m of the water's edge unless specifically excluded by Notice or where designated for other purposes
- (b) within 50m of any wharf, jetty, slipway, diving platform or boat ramp
- (c) when passing through a recognised anchorage for small vessels.



In addition, on Victorian inland waters a 5 knot speed limit applies to boat operators and PWC operators within:

- (a) 50m of the water's edge unless the local authority specifically excludes those waters by Notice or they are designated for other purposes
- (b) 50m of any fixed or floating structure in or on the water.

Knots	Kilometres per hour	Miles per hour
5	9.26	5.75
10	18.52	11.51

5 knots is equal to a fast walking pace.

GENERAL SAFETY/OPERATING RULES

- Access lanes provide access to the shore for waterskiers at speeds greater than 5 knots when otherwise it might not be possible. Bathers are not permitted within an access lane.
- Bathers must remain more than 50m from a boat ramp when it is in use or about to be in use.
- No wash zones are where a vessel must proceed at a speed that creates minimal wash.
- Areas may be set aside where specific activities are prohibited (for example, no waterskiing, no bathing).
- Areas may be set aside for exclusive use or for special purposes (for example, sailing vessels only).
- On inland waters, vessels are required to travel in an anticlockwise direction in relation to the approximate centre of the waterway, except in a speed restriction zone or where local rules provide for travel in a clockwise direction.

Details of speed restrictions and local operating and usage rules are generally displayed on signage on the shore or marked by buoys or beacons in the water.

All vessels must travel at a safe speed at all times. A safe speed cannot be expressed as a maximum or minimum number of knots because it varies with circumstances and conditions. The operator must always assess the safety of the vessel's speed. A safe speed is one at which the vessel can be stopped in time to avoid any danger which arises suddenly.

Further information can be obtained from the relevant waterway manager. Visit www.transportsafety.vic.gov.au for more information about waterway managers in Victoria.

SHIPPING OPERATIONS IN TRANSIT ONLY ZONES

A transit only zone is a regulated area of water in the vicinity of a commercial shipping channel or fairway. Recreational craft must not anchor or drift within the Transit Only Zone.

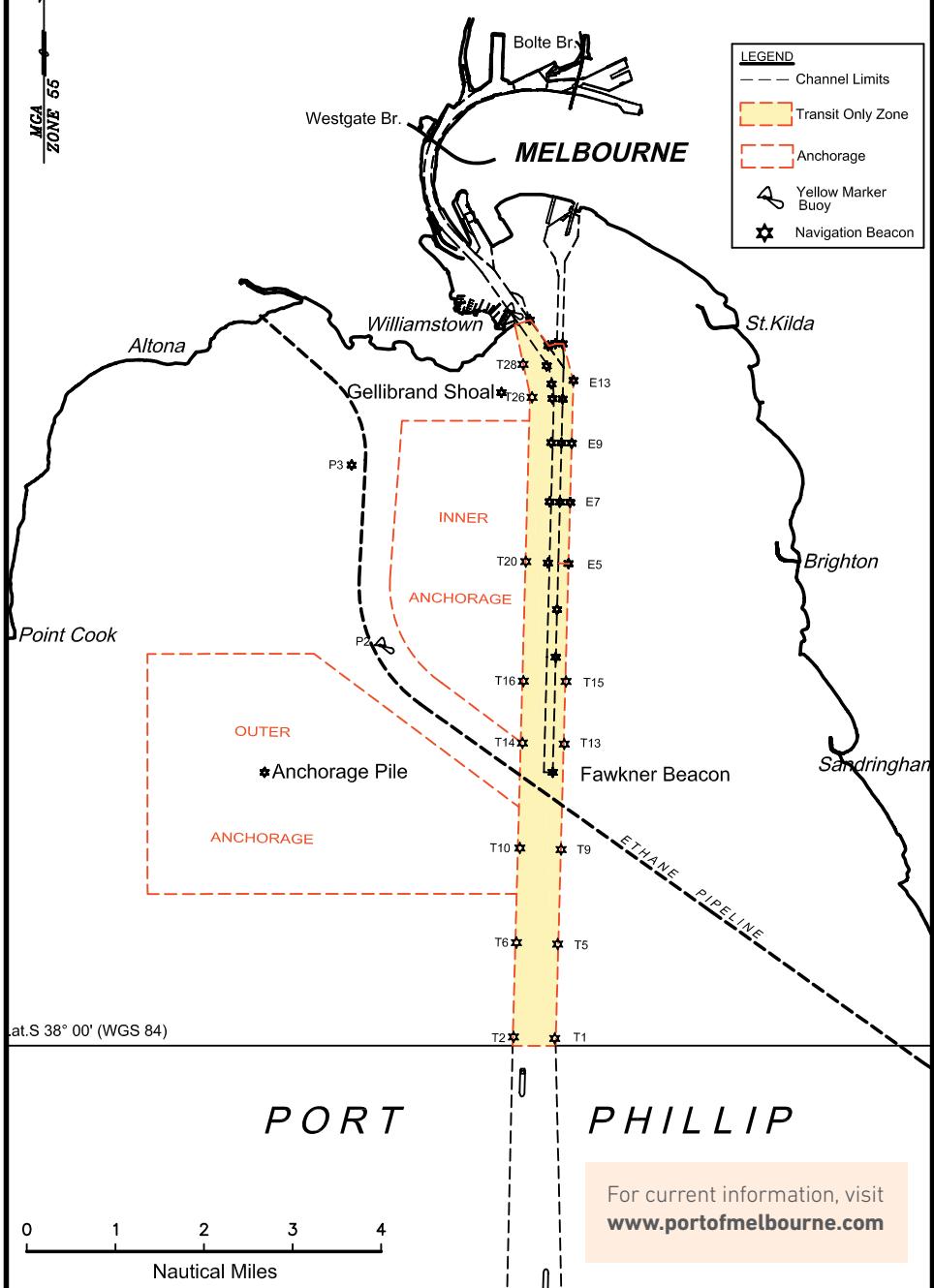
The purpose of designating a transit only zone is:

- to avoid potential collisions between small boats and large commercial ships
- for the safety of small boat operators and their passengers

A transit only zone in Port Phillip Bay extends from Point Gellibrand (Williamstown) south to an imaginary line at latitude 38° South.

Yellow "special mark" light buoys are used to define the boundary zone (see map).

TRANSIT ONLY ZONE



SHIPPING TRAFFIC IN OTHER AREAS

Shipping channels and their approaches are high shipping hazard areas. Small boat operators should exercise caution and steer well clear in these areas.

HARBOURMASTER'S DIRECTIONS

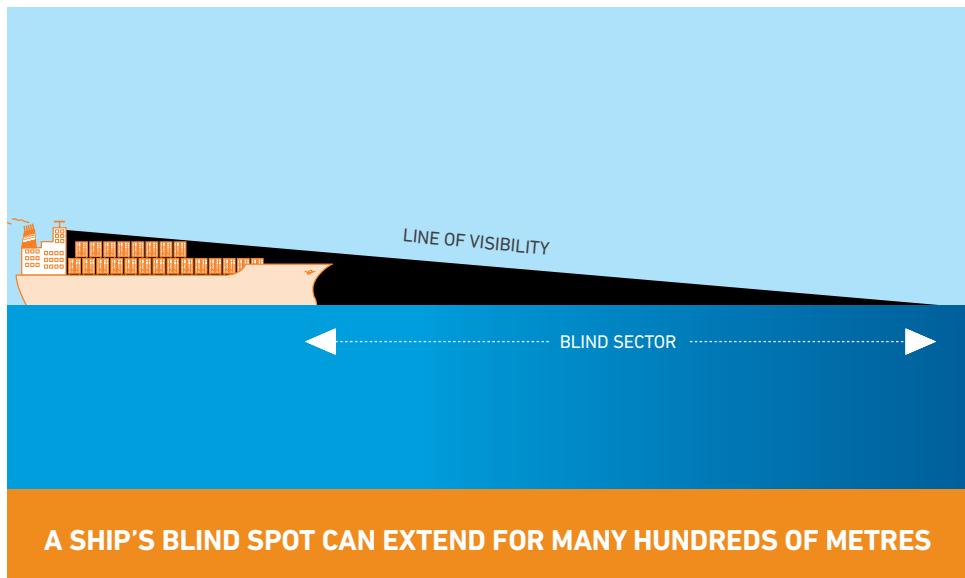
Harbourmasters directions can include specific directions for recreational vessels to keep out of the way of ships and vessels engaged in port operations.

In port waters the relevant harbourmaster may make special directions concerning the navigation and operation of recreational vessels. In port waters for Port of Geelong, Port of Melbourne and Port of Portland the following directions apply.

The master of a vessel less than 25m in length shall ensure that the vessel keeps out of the way of:

- vessels more than 25m in length
- a tug or launch assisting the movement, berthing or unberthing of another vessel
- the master of another vessel less than 25m in length shall ensure the vessel does not approach within 30m of a ship berthed at a tanker terminal.

A copy of the Harbourmaster's Directions for the Port of Melbourne, Geelong, Hastings, Portland and Gippsland Ports is included in the Port Operating Handbook which can be purchased from the relevant authority.



ENVIRONMENTAL AND WILDLIFE REGULATIONS

Help protect the environment by observing the following common sense rules:

- launch and retrieve your boat at designated boat ramps
- reduce your vessel speed to five knots near the edge of lakes and rivers
- dispose of all rubbish including fishing line, bait bags and food scraps appropriately
- use sewage disposal facilities and prevent pollutants such as petrol and oil from entering the water.

For further information contact Department of Environment, Land, Water & Planning on 136 186 or visit delwp.vic.gov.au

HERITAGE AREAS

There are more than 700 historic shipwrecks in Victorian waters. Any ship that sank more than 75 years ago is protected by the Heritage Act 1995 (Vic) or the Historic Shipwrecks Act 1976 (Cth) and the regulations. Protected zones have been declared around nine shipwreck sites, six of which are in Port Phillip.

It is an offence to enter a protected zone without a permit. This includes fishing, trawling or any underwater activity such as diving within a protected zone.

Further restrictions are described in the Heritage (Historic Shipwrecks) Regulations 2007 (Vic).

**Remember: Protected zone = No entry
(without a permit)**

It's also an offence to damage, disturb or interfere with any historic shipwreck. This includes anchoring on it or removing objects from the wreck.

For further information on historic shipwrecks contact Heritage Victoria on telephone (03) 9208 3333 or www.heritage.vic.gov.au



WHALES, DOLPHINS AND SEALS

It's important not to get too close to marine mammals when on the water.

To reduce the risk of disturbance to natural behaviours:

- boats are not permitted to approach within 100 metres of a dolphin or 200 metres of a whale
- jet skis are not permitted within 300 metres of either a whale or dolphin.

Caution zones apply within 300 metres of a whale, within 150 metres of a dolphin and within 50 metres of a seal. When in the caution zone, all vessels (motorised or not) must:

- avoid sudden changes in direction
- maintain a constant speed not exceeding 5 knots (8 kilometres per hour)
- leave the caution zone if a marine mammal shows any sign of disturbance
- not approach whales, dolphins or seals from directly in front of the animal
- not approach whales, dolphins or seals from directly behind the animal
- not be in the known path of a whale, dolphin or seal
- not form a barrier between a marine mammal and its group
- not come between a mother and her young.

If a marine mammal approaches you – if a dolphin decides to ride the bow wave of your boat or if it takes an interest in your vessel, for example – you are not committing an offence. However, if you deliberately approach closer than the minimum prescribed distances you may be liable for prosecution.

In a narrow waterway (that is, waterways less than 300 metres wide), you cannot approach closer than 30 metres to a whale or dolphin, unless navigating for safe passage.

There are no restrictions on how close you can get to a seal in the water but a vessel must be kept at least 30 metres from a seal on land. There are restrictions on boating around protected areas and seal breeding colonies, how you operate your boat around a seal and approaching seals on land.

Licensed tour operators are permitted to approach closer than distances detailed above, subject to a range of operating conditions.

By taking these small steps, you'll not only be doing the right thing by the animals, you'll be helping to make sure future generations can enjoy the sights and sounds of whales, dolphins and seals for a long time to come.

To view a summary of the restrictions in place for boating and swimming around whales, dolphins and seals, contact the Department of Environment, Land, Water & Planning (DELWP) Customer Service Centre on 136 186 for a brochure or visit www.delwp.vic.gov.au.

RECREATIONAL FISHING REGULATIONS

Ensure you have a current copy of the Victorian Recreational Fishing Guide or have downloaded the 'Vic Fishing' app for smartphones.

The Guide describes size and bag limits, closed seasons and permitted equipment, and is free of charge.

Call 136 186 to request a copy or visit www.vic.gov.au/fisheries

**Report illegal fishing anytime by calling
13FISH (133 474)**

AQUACULTURE FISHERIES RESERVES

Nine offshore marine aquaculture fisheries reserves have been established in and around Port Phillip, marked by navigation aids with 'Aquaculture' written on the yellow 'X' cross bar (see picture). They are lit at night.

Recreational users in surrounding waters should proceed with caution if near or entering the reserves.

For further information visit www.vic.gov.au/fisheries or contact the Customer Service Centre on 136 186.





www.marylaloy.com.au

MARINE NATIONAL PARKS AND MARINE SANCTUARIES

The Victorian Government has created a system of 13 marine national parks and 11 smaller marine sanctuaries to ensure that representative samples of Victoria's marine environment are conserved for future generations.

RESTRICTIONS

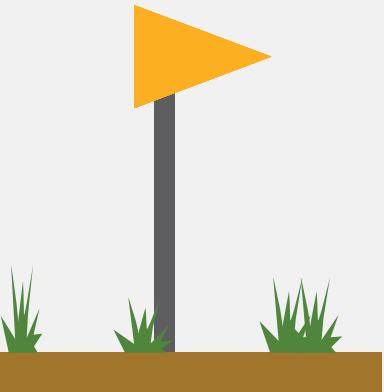
All forms of commercial and recreational fishing from sea or shore are prohibited, including collecting bait, line fishing, setting traps, netting and the use of spears. Heavy penalties apply.



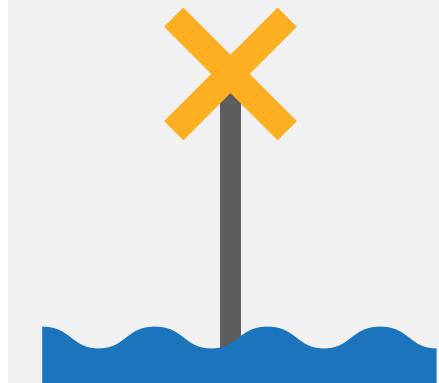
No fishing, netting, spearing, taking or killing of marine life is permitted including all methods of fishing, from the shore or at sea.



Taking or damaging animals, plants and objects (artefacts) is also not permitted. There are strong penalties under the *National Parks Act 1975 (Vic)* for fishing in marine national parks and marine sanctuaries.



YELLOW-ON-SHORE TRIANGLES



IN-WATER SPECIAL MARK

BOUNDARY MARKERS

Yellow on-shore triangles

These are located at the park boundaries and point in towards the marine national park or marine sanctuary. In some cases there are two yellow on-shore triangles located one above the other. These two triangles can be used to get a lead to the boundary by aligning the two triangles, one directly above the other.

Detailed maps of boundaries are available from Parks Victoria and Fisheries Victoria offices.

Yellow in-water special mark

These markers are found on buoys and piles and are used in waters to mark the boundaries of zones and other special areas.

PUBLICATIONS AND FURTHER INFORMATION

Parks Victoria is responsible for the day-to-day management of Victoria's marine national parks and marine sanctuaries. If you would like further information about Victoria's marine national parks and marine sanctuaries, please contact the Parks Victoria Information Centre on 131 963 or visit www.parkweb.vic.gov.au. On-site signage at key access points (for example, boat ramps) is also provided.

ENVIRONMENT PROTECTION

Some boating activities can have a significant impact on water quality. The discharge of waste from boats may add nutrients and pollutants to our waterways and can pose a risk to ecosystems and human health. The discharge of oil, chemicals, sewage, garbage, litter or any other waste is prohibited in any waters in Victoria.

To report a waste or pollution incident contact the Environment Protection Agency (EPA) on telephone 1300 372 842 or go to www.epa.vic.gov.au

MARINE PESTS

Victoria's marine life is under threat from introduced marine pests. Port Phillip is heavily infested with pests like the Northern Pacific Seastar and Japanese Kelp. Introduced marine species hitchhike from international or interstate waters on vessels big and small. They can be carried by ships, fishing boats, dinghies, cruisers, yachts, canoes, kayaks or even on fishing gear. If your boat has been in infested waters, marine pests could be:

- attached to the hull
- tangled in the anchor, propeller, trailer, rods, nets, life jackets
- in damp places like the bilge, coiled wet ropes, pipes or buckets.

To stop pests spreading, keep your boat and gear clean and dry.

 Before you sit your test to get your marine licence, would you like to check your knowledge about the information in this handbook? We have sample test questions available.

Download the questions from the Transport Safety Victoria website
www.transportsafety.vic.gov.au.

To have a copy mailed to you call **1800 223 022** or email information@transportsafety.vic.gov.au.

CHAPTER 10

AIDS TO NAVIGATION

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BUOYAGE SYSTEM FOR PORTS, ENCLOSED AND COASTAL WATERS

The information in this chapter is based on the requirements of the International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA), Marine Safety Act and the Marine Safety Regulations.

The buoyage system used in Victorian ports and around the coast is known as the IALA System A which is a combined lateral and cardinal system. Although called a buoyage system, marks may be buoys, piles or beacons. Markers may contain one or more of the characteristics described in this handbook, for example, a marker may be colour coded but without a topmark.

IALA SYSTEM A LIGHT RHYTHM TYPES

Rhythm	Description	Navigation chart abbreviation
Fixed	A light showing steadily and continuously	F
Flash	Duration of light shorter than duration of darkness	Fl
Occulting	Duration of light longer than duration of darkness	Oc
Iso phase	Duration of light and darkness are equal	Iso
Quick flash	A flash rate of 60 or 50 per minute	Q
Very quick flash	A flash rate of 120 or 100 per minute	VQ
Long flash	A flash of not less than two seconds	LFI
Group flash	A group of two or more flashes	Fl(2) OR VQ(9)
Morse A	A light flashing Morse code signal A (dot, dash)	Mo (A)

Note:

- (a) When the light exhibited is not white, the colour is indicated in the chart abbreviation by Y, R or G for yellow, red or green, for example, Fl.(4)Y;
- (b) The period of a light (time between the start of successive sequences) is indicated in seconds by the letters, for example, Fl.R.5s = single red flash every five seconds.

DIRECTION OF BUOYAGE

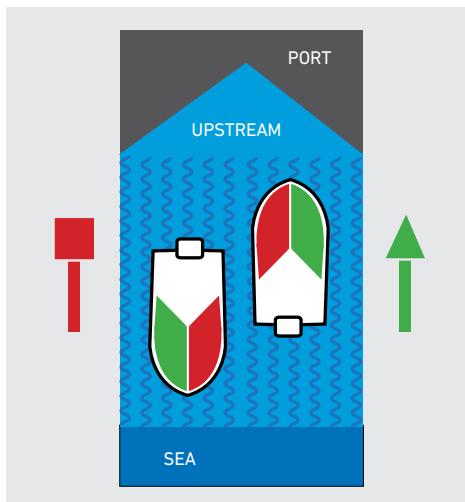
In order to navigate safely it is essential to know the direction of buoyage. On waters offshore of the Victorian coast, buoyage runs east to west through Bass Strait. On Victorian coastal waters buoyage runs from seaward inwards to ports, harbours, rivers, estuaries and other waterways. When leaving a port, harbour, river, estuary or other waterway the port-hand mark (red) should be passed on the vessel's starboard (right) side.

Upon entering a port, harbour, river, estuary or other waterway the port-hand mark (red) should be passed on the vessel's port (left) side.

As Western Port has two entrances, boundaries are laid down to indicate where the direction of buoyage from each entrance meets. They form a line from just north of Lang Lang River to Palmer Point (French Island) to Observation Point (Phillip Island).

It is necessary to know the direction of north and the other main points of the compass.

Under the Marine Safety Act it is an offence for any person to interfere or tamper with, or obstruct the use or operation of, a navigation aid.



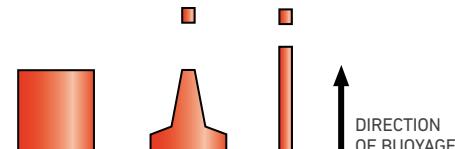
BUOYAGE TYPES

There are five major types of marks under the IALA System A: lateral, cardinal, isolated danger, special and safe water.

LATERAL MARKS

These are used to indicate the port (left) and the starboard (right) sides of the channels when travelling into port.

Port-hand marks are coloured red and the basic shape of the buoy (and topmark when fitted) is cylindrical (a 'can'). If lit, the light will be red and may have a rhythm (see below). Such a mark would be on the port side of a vessel when travelling in the direction of buoyage.



Colour: Red

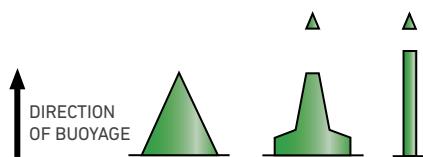
Shape (buoys): Cylindrical (can), pillar or spar

Topmark (if any): Single red cylinder (can)

Lights are red (when fitted) and may have any rhythm other than composite group-flashing (2+1). They are used on modified lateral marks to indicate a preferred channel. Examples are:

Q.R	CONTINUOUS QUICK LIGHT	
FL.R	SINGLE-FLASHING LIGHT	
L FL.R	LONG-FLASHING LIGHT	
FL (2) R	GROUP-FLASHING LIGHT	

Starboard-hand marks are coloured green (occasionally, black may be used) and the basic shape of the buoy (and topmark when fitted) is conical. If lit, the light will be green on any rhythm (see below). This mark would be on the starboard side of a vessel when travelling in the direction of buoage.



Colour: Green

Shape (buoys): Conical (cone), pillar or spar

Topmark (if any): Single green cone point upwards

Lights are green (when fitted) and may have any rhythm other than composite group-flashing (2+1). They are used on modified lateral marks to indicate a preferred channel. Examples are:

Q.G	CONTINUOUS QUICK LIGHT	
FL.G	SINGLE-FLASHING LIGHT	
L FL.G	LONG-FLASHING LIGHT	
FL (2) G	GROUP-FLASHING LIGHT	

When marks are numbered, odd numbers will lie on the starboard side and even numbers on the port side when travelling in the direction of buoage. They are numbered from seaward.

CARDINAL MARKS

These are used to indicate the location of the best navigable water, to show the safe side on which to pass danger (rocks, wrecks, shoals, etc.) and to draw attention to a feature in a channel.

To understand the meaning of a particular cardinal mark, the navigator must be aware of his or her geographical directions and therefore needs a compass to determine where the best navigable water lies. The mark is placed in one of the four quadrants: north, south, east or west. If in doubt, consult the chart.

SHAPE

The shape of a cardinal mark is not significant, but in the case of a buoy it will be a pillar or spar.

TOPMARK

The most important daylight feature of the cardinal mark is the black double cone topmark and the four different arrangements that indicate the relevant direction from the mark.

COLOUR

Black and yellow horizontal bands are used to colour the cardinal marks and indicate the type of cardinal mark. Topmark cones point in the same direction as the location of the black bands on the mark.

LIGHTS

If lit, the mark will exhibit a quick flashing (about 1 per second) or very quick flashing (about 2 per second) white light. The rhythm of the light will indicate the particular quadrant of the mark.

The number of flashes corresponds to the numbers on a clock face:

N = 12 flashes

E = 3 flashes

S = 6 flashes

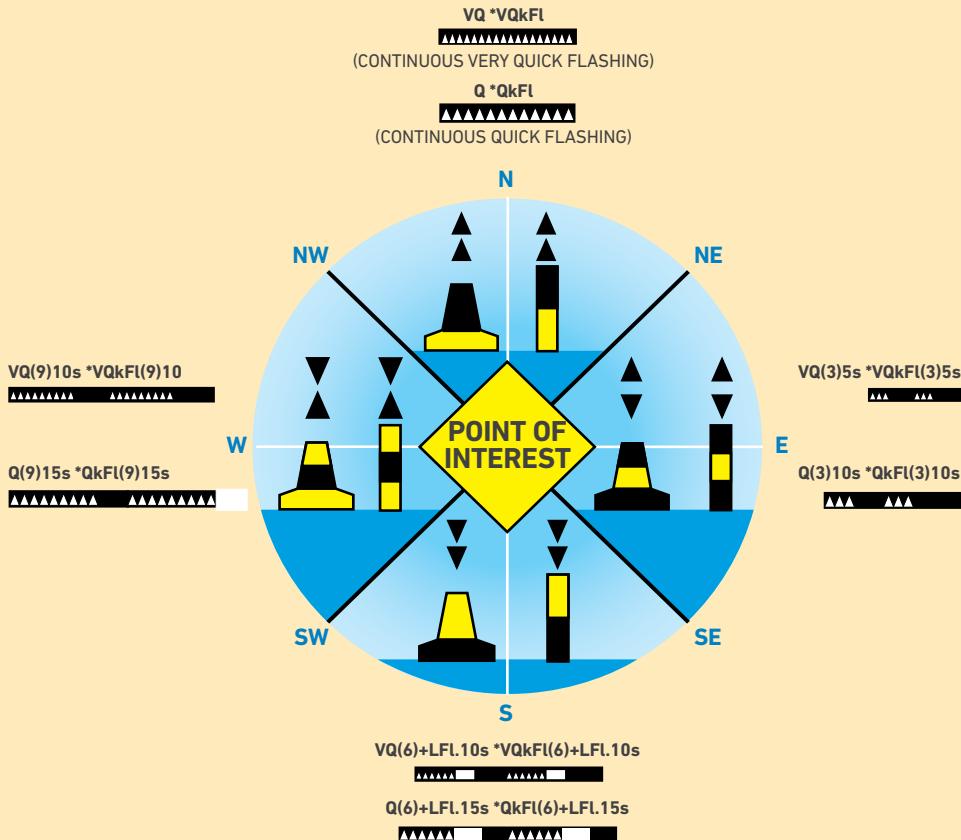
W = 9 flashes

North cardinal mark

Topmark consists of two cones pointing up. The mark has a black band over a yellow band. When lit, a north mark exhibits a continuous quick or very quick flashing white light. Pass on the northern side of this mark.

East cardinal mark

Topmark consists of two cones pointing away from each other. The mark has black/yellow/black bands. When lit, an east mark exhibits a white light flashing in groups of three quick or very quick flashes. Pass on the eastern side of this mark.



West cardinal mark

Topmark consists of two cones point to point. The mark has yellow/black/yellow bands. When lit, a west mark exhibits a white light flashing in groups of nine quick or very quick flashes. Pass on the western side of this mark.

South cardinal mark

Topmark consists of two cones pointing down. The mark has a yellow band over a black band. When lit, a south mark exhibits a white light flashing in groups of six quick or very quick flashes followed by a long flash. Pass on the southern side of this mark.

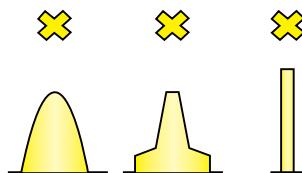
SPECIAL MARKS

These are used to indicate a special area or feature, the nature of which may be found by consulting a chart or sailing directions. Some local examples are the spoil ground, pipeline and recreation buoys in Port Phillip and the pilot buoy off Flinders in Western Port.

The colour of the special mark is always yellow, and the top mark, if fitted, is a single yellow X. Some special marks may be in the shape of a lateral mark. If a light is fitted it will be yellow and may have any rhythm not used for white lights, for example, Fl.Y, Fl.(4) Y.

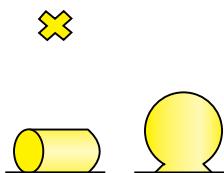
In Victorian waters, special marks are commonly used to indicate no boating zones, special activity zones and speed restriction zones.

TOPMARK
(IF FITTED)



SHAPE:
OPTIONAL

TOPMARK
(IF FITTED)



SHAPE:
OPTIONAL

FL.Y



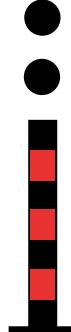
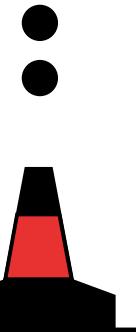
(4) Y



ISOLATED DANGER MARKS

These are on, or moored above, an isolated danger of limited extent that has navigable water all around it. The colours are red and black horizontal stripes and the mark is, when practicable, fitted with a topmark of two black spheres, one above the other. If lit, the light will be white showing a group of two flashes. It may help to remember this mark by associating the two flashes with two spheres.

Some examples of the isolated danger mark are on the Prince George Bank off Indented Head, Wooley's Reef at Frankston and Eagle Rock in the Northern Western Port. Isolated danger marks are not always positioned centrally over a danger and it is therefore advisable to refer to a chart and not to pass too close.



Fl (2)



SAFE WATER MARKS

These are used to indicate that there is navigable water all around the mark. These marks can be used as a channel entrance, centre line, mid-channel, or landfall buoy. The Westernport Fairway buoy is a local example of this mark. The shape of the buoy is a sphere, spar or pillar and is coloured with red and white vertical stripes. The topmark, which is fitted, when practicable, to pillar and spar buoys, is a single red sphere. If lit, an isophase, occulting, one long flash every ten seconds, or morse "A" (dot, dash) white light is exhibited. The buoy shape is optional but should not conflict with that used for a lateral or special mark.

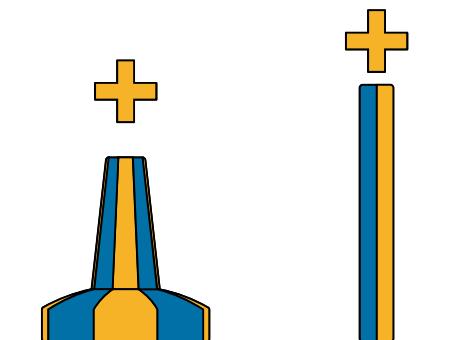
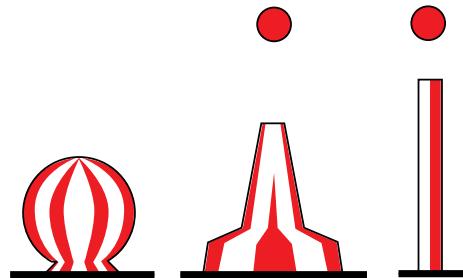
Operators of vessels are cautioned that large commercial vessels may pass close by these marks.

MARKING NEW DANGERS

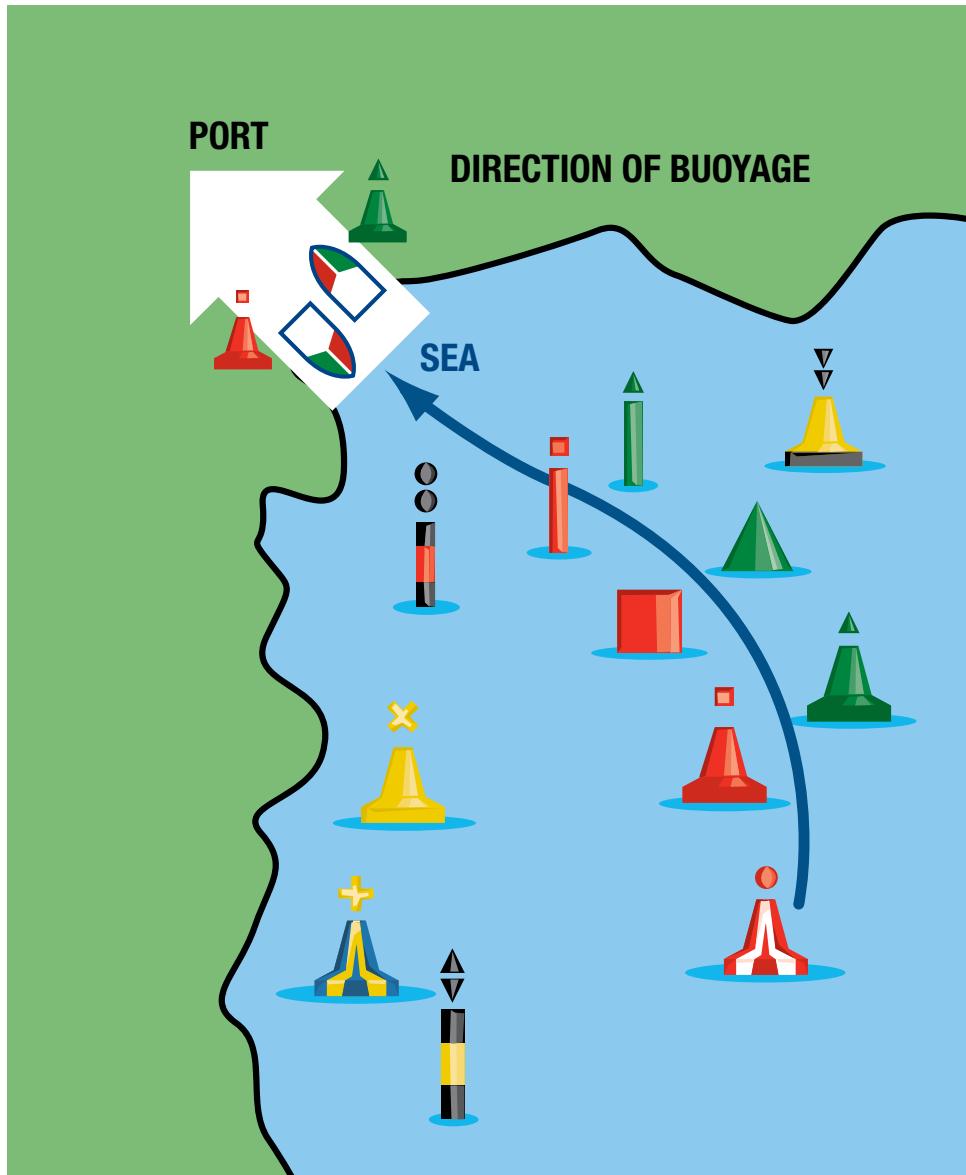
The term new dangers is used to describe newly discovered hazards not yet shown in nautical documents. New dangers include naturally occurring obstructions such as sandbanks or rocks or man-made dangers such as wrecks. New dangers may be marked using lateral, cardinal, isolated danger marks or by using the emergency wreck marking buoy. The marking of the new danger may be removed when the new danger has been sufficiently communicated or the danger otherwise resolved. The shape of the emergency wreck marking buoy is a pillar or spar and is coloured with blue and yellow vertical stripes. The topmark, if any, is a vertical/perpendicular yellow cross.

The light will occult to show alternate blue and yellow light; one second of blue light and one second of yellow light with half a second of darkness between.

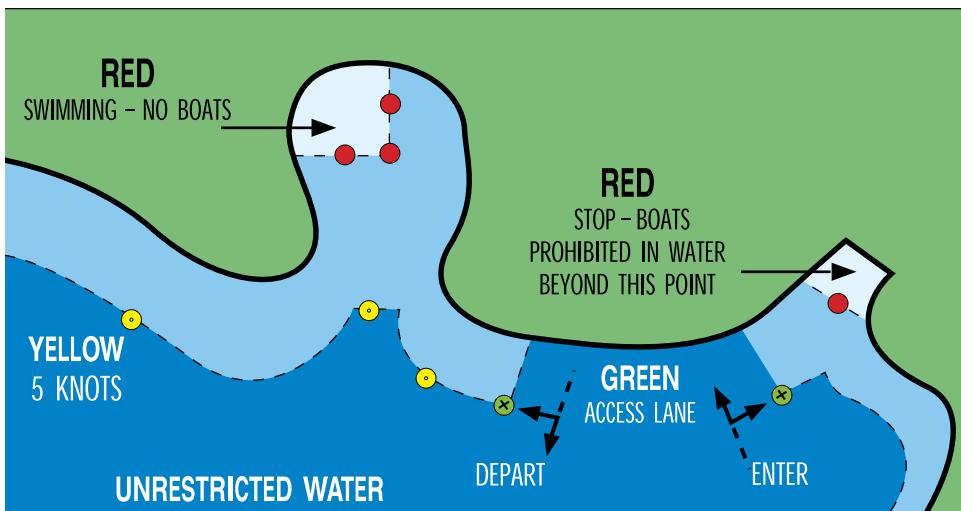
Iso	
Oc	
L.Fl.10s	
Mo (A)	



Oc.B.Y	
--------	--



BOATING ZONE BUOYAGE



Red mini buoy

'Stop – no boats' or 'Swimming – no boats': used to mark prohibited water and swimming areas.



Green mini buoy

Access lane: the waters between these buoys are unrestricted to allow the picking up or dropping off of a water skier.



Yellow mini buoy

Speed restrictions: an area is set aside as a speed restriction zone because excessive speed is a risk to the operator, to other vessels or persons, or to the environment. The yellow buoys may be placed because of local or general requirements for slower speeds.



Red and yellow mini buoy

Special purpose: these unmarked buoys are used to signify regatta areas, hazards, channels, etc.



BOATING ZONE MARKS AND SIGNAGE

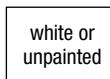
Sometimes signs on the shore are used instead of, or in addition to, marks in the water. For example, no boating zones, special purpose zones or prohibited zones.

Access lanes are solely for waterskiing and marked by beacons or signs on the shore with each boundary being delineated by the alignment of an orange disc and a black and yellow triangle beacon.

Special purpose areas such as waterskiing only, PWC or kite boarding areas may also use onshore beacons to delineate the zone. In this case an orange disc may be used with a black and white triangle.

COLOUR CODED BERTHING ZONES

Throughout Victoria many berthing zones are painted or signed to indicate berthing conditions or limits.



Restricted boating area

- Maximum time limit is 48 hours as per *Port Services (Local Ports) Regulations 2004 (Vic)*
- Vessels can be un-manned



Loading zone

- Loading zone for the pick up and drop off of passengers and cargo only
- Vessels must be manned at all times



Short term zone

- Time limit as indicated
- Vessels can be un-manned



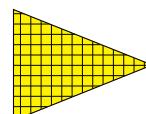
Permit only zone

- Berthing prohibited without a permit
- Vessels can be un-manned

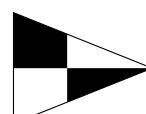
ON-SHORE BEACONS



No boating

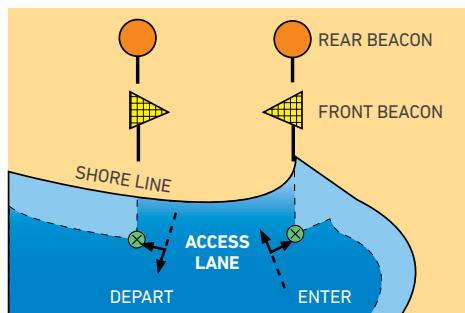


Access lanes



Special purpose

(Water skiing, PWC, kite surfing, etc)



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CHAPTER 11

VESSEL LIGHTS, DAY SHAPES AND SOUND SIGNALS

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VESSEL NAVIGATION LIGHTS

The Marine Safety Act requires that lights must be displayed from sunset to sunrise and in times of restricted visibility during daylight hours.

Minimum ranges at which lights can be seen refer to conditions on a dark night with a clear atmosphere.

The information in this chapter is based on the *International Regulations for Preventing Collisions at Sea 1972* (COLREGS), Marine Safety Act and Marine Safety Regulations.

MINIMUM VISIBILITY FOR LENGTH OF VESSEL

Vessel length in metres = m

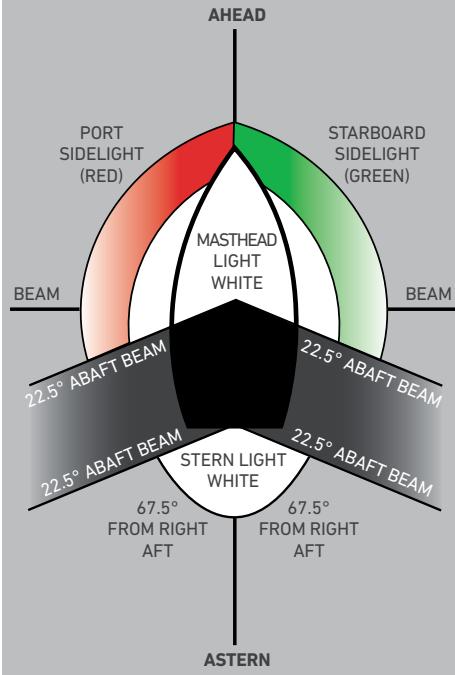
Distance in nautical miles = nm

Vessel length			
	< 12m	12m up to 50m	50m and over
Light	Distance for minimum visibility		
Masthead lights	2nm	5nm*	6nm
Sidelight	1nm	2nm	3nm
Sternlight	2nm	2nm	3nm
Towing light	2nm	2nm	3nm
All-round lights (white, red, yellow, green)	2nm	2nm	3nm

* Where the length of a vessel is 12m or more, but less than 20m, the masthead light visibility is 3 nautical miles.

For guidance on the installation of navigation lights see chapter 3 about vessel preparation.

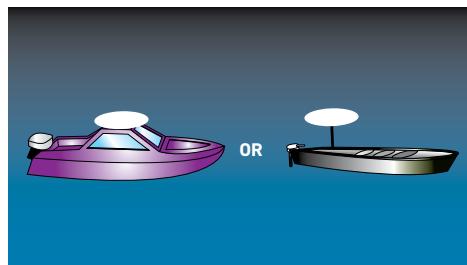
VESSEL NAVIGATION LIGHT MOUNTING AND SECTORS



VESSEL NAVIGATION LIGHTS TO BE DISPLAYED

Recreational vessels at anchor

All recreational vessels must show an all-round white light while at anchor. If the vessel is drifting (under way but not making way) the vessel must display appropriate lights.

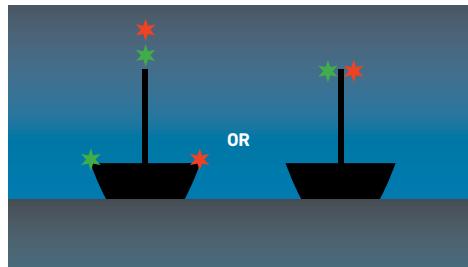
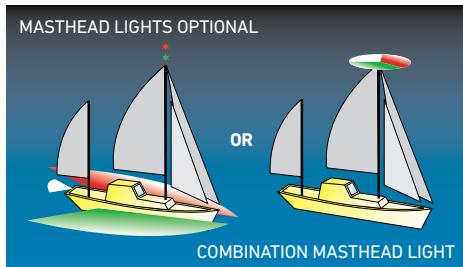


SAIL AND HUMAN POWERED VESSELS

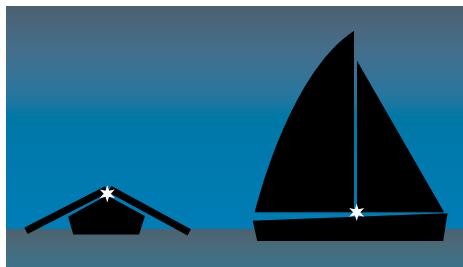
Sailing vessels under way or drifting

A sailing vessel under way must exhibit side lights and a stern light. If the vessel is less than 20m in length, the sidelights and stern light may be combined in one lantern (tricolour lantern) carried at or near the top of the mast where it can be seen.

In addition to the sidelights and stern light, a sailing vessel may exhibit at or near the top of the mast, where they can be best seen, two all-round lights in a vertical line, the upper being red and the lower being green. These lights must not be exhibited in conjunction with a combined lantern (tricolour lantern).

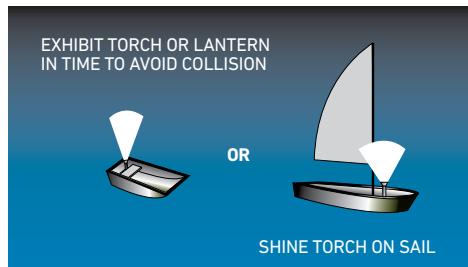


Reminder – whenever a sailing vessel is using its engine, with or without sails, it is a power-driven vessel within the meaning of the rules, and must act accordingly and show the appropriate shapes by day and lights by night. This means that a tricolour lantern or two red/green masthead lights must not be used under power.



Sailing vessels under way (not using power) less than 7m in length and boats under oars or drifting

If practicable, any of the combinations for vessels under sail or an electric torch or lighted lantern showing a white light and exhibited in sufficient time to prevent collision.



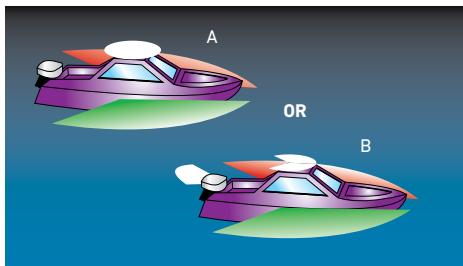
Vessels under 7m in length not using an engine and unable to exhibit the lighting configuration

POWERBOATS

Powerboats under way or drifting

Vessels under 12m in length must show the following lights:

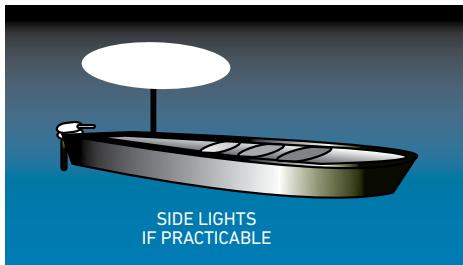
- a) sidelights and an all round white light
or
- b) sidelights, masthead lights and a stern light.



Vessels under 7m in length and under 7 knots

Power-driven vessels of less than 7m in length, whose maximum speed does not exceed 7 knots, when under way, may exhibit an all-round white light.

Sidelights should also be shown if practicable.

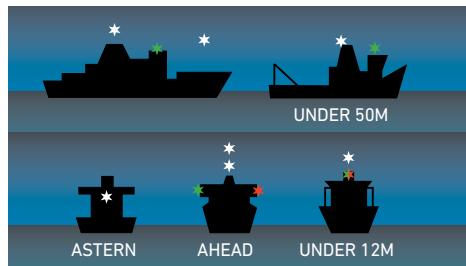


LARGER VESSELS

Under 50m in length

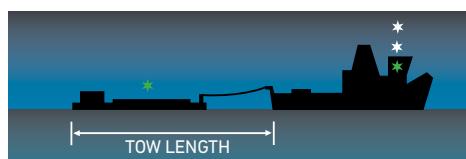
For vessels under 50m in length, a second masthead light is optional.

For vessels under 12m in length, sidelights may be a combined lantern – on fore and aft centreline.



Vessel towing another vessel

When tow length is under 200m, two masthead lights are shown (three masthead lights if over 200m). A yellow towing light is situated over the stern light of the towing vessel. The towed vessel shows side and stern lights.



Vessel at anchor

Length 50m or more: two all-round lights, the forward one higher than the aft one. Length under 50m: second (lower) light at stern is optional.

A vessel of 100m or more length shall also illuminate her decks with lights.



Vessel aground

Anchor lights and two all-round red lights. Vessel under 12m length is not required to exhibit these lights.

This signal does not mean distress or in need of help, but operators should navigate with caution.



Vessel restricted in ability to manoeuvre (includes diving vessels)

Three all-round lights, top and bottom lights red and the middle light white. When making way through the water, vessel also shows masthead lights, sidelights and stern light.

When at anchor, vessel also shows anchor lights. This signal does not indicate distress or a need for help, but operators should navigate with caution.



Vessel engaged in underwater operations or dredging

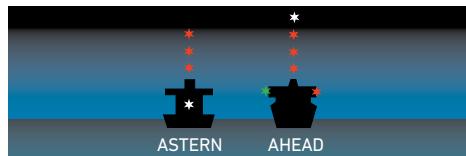
Vessel with an obstruction on one side shall, in addition to restricted ability to manoeuvre lights, carry two all-round red lights, on the side of the obstruction, and two all-round green lights on the side that vessels may pass.



Vessel constrained by her draught

Power-driven vessel restricted to a narrow channel by her draught and thus unable to deviate from course.

Lights for power-driven vessel under way and three all-round red lights.



Pilot vessel on duty

Two all-round lights, the top light white and the lower light red.

When at anchor, shows anchor light or lights. When under way, shows sidelights and stern light.



Vessel not under command

Two all-round red lights and when making way through the water, sidelights and stern light (vessels under 12m in length are not required to comply with these lights). This signal does not mean distress, but shows inability to manoeuvre. Vessels are required to keep clear of vessels not under command.



Commercial fishing vessel trawling

Two all-round lights, the top light green and the lower light white.

A rear masthead light is optional for fishing vessels under 50m in length. As making way through water, sidelights and stern lights are shown.



Fishing vessel (other than trawling)

Two all-round lights, the top light red and the lower light white. If outlying gear extends over 150m horizontally from fishing vessel, shows one all-round white light in direction of gear (sidelights and stern light shown when making way through water).



Vessel working in chains

(for example, Raymond Island Ferry)

Vessel shows an all-round red light at each end and an all-round green light above the red light at the forward end to indicate the direction in which the vessel is proceeding.



Vessels operating in the vicinity of the Paynesville/Raymond Island vehicular ferry must proceed with caution and keep clear of the ferry.

DAY SHAPES FOR VESSELS

These signals are shown by day in all weathers on vessels to denote certain activities in which they are engaged.

In restricted visibility, the appropriate lights should also be displayed by day. You must be able to recognise these day shapes which are generally used by larger vessels.

Vessel at anchor

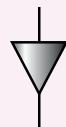
Not required for vessels of less than 7m when at anchor not in a channel or channel approach, or a usual anchorage, etc.

Forward, where best seen,
ONE BLACK BALL.



Vessel under power with sails set (motor sailing)

Forward, where best seen
ONE BLACK CONE, point down.



Fishing vessel

Trawls, nets or other gear (under way or at anchor).

In a vertical line,
TWO BLACK CONES,
pointing toward each other.

**Vessel constrained by her draught**

Power-driven vessel restricted to a narrow channel by her draught and thus unable to deviate from her course.

**Vessel not under command**

Not required for vessels under 12m.

Not distress, but indicates inability to manoeuvre.

Where best seen, in a vertical line,
TWO BLACK BALLS.

**Vessel aground**

This signal does not indicate distress or a need for help (not required for vessels under 12m length).

Where best seen, in a vertical line, THREE BLACK BALLS.

**Vessel restricted in ability to manoeuvre**

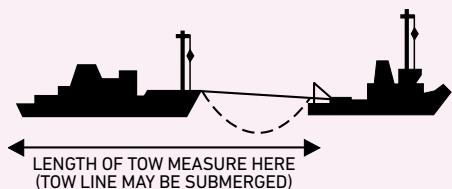
For example, vessels engaged in: flying aircraft, cable laying, replenishment at sea, underwater operations, servicing navigation marks, towing, where manoeuvre is restricted by tow. This signal does not indicate distress or a need for help.

When at anchor, vessel also shows anchor shape. Where best seen, in a vertical line, BLACK BALL, BLACK DIAMOND, BLACK BALL.

**Power-driven vessel towing**

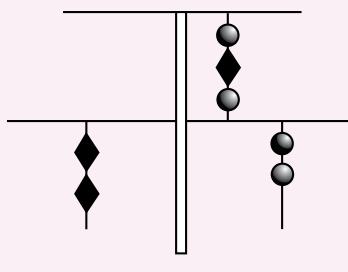
Vessel being towed if length of tow exceeds 200m.

On each vessel where best seen, ONE BLACK DIAMOND.

**Vessel engaged in underwater operations or dredging**

With an obstruction on one side shall, in addition to the above shapes, carry TWO BLACK BALLS on the side of the obstruction, and TWO BLACK DIAMONDS on the side on which vessels may pass.

BLACK BALLS ON BOTH SIDES may be used to indicate passage or channel is blocked and vessels should await instructions before proceeding.



PASS SAFELY
THIS SIDE

OBSTRUCTION
THIS SIDE

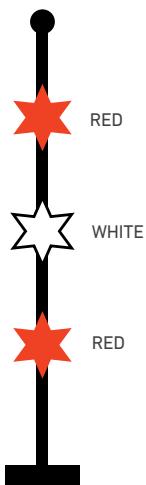
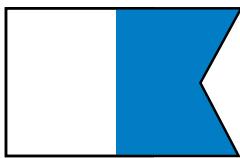
DIVING OPERATIONS FROM A SMALL VESSEL

Any vessel with divers operating from it must always display signals by day or night to inform other vessel users.

The daytime signal for divers is an international Code Flag 'A', at least 750mm long and 600mm wide.

It should be placed to ensure all-round visibility.

During night diving, a vessel must show the international signal for a vessel restricted in its ability to manoeuvre. These are three all-round lights in a vertical line, top and bottom are red and the middle one is white.



**5
KNOTS**

A five knot speed limit applies to vessel operators and water skiers within a distance of 100m of a vessel, buoy or structure on which a 'diver below' signal is displayed.



SOUND AND LIGHT SIGNALS

DEFINITIONS AND CLASSIFICATIONS

Whistle

Means of making short or long blasts

Short blast

About one second duration



Prolonged blast

4–6 seconds duration



Vessels of 100m in length or more

Use whistle, bell and gong



Vessels of 12m in length or more

Use whistle and bell



Vessels of less than 12m in length

Use any efficient sound signal

Manoeuvring and warning signals when vessels are in sight of one another

Whistle signals below may be supplemented by light signals using the same code.

Description	Signal
I am altering my course to starboard	[]
I am altering my course to port	[] []
I am operating astern propulsion	[] [] []
Signal to alert another vessel that you are unsure of its intentions, or doubt whether you are taking enough action to avoid collision	[] [] [] [] []

Warning signals – vessels in narrow channels

When the vessel overtaking or being overtaken must take action to permit safe passing.

Description	Signal
I intend to overtake on your starboard	[] [] []
I intend to overtake on your port	[] [] [] []
Agreement by overtaken vessel	[] [] [] []
A vessel in doubt about signals, intentions or safety of the proposed manoeuvre of an overtaking vessel	[] [] [] [] []
Vessel nearing blind bend in channel	[]
Vessel other side of bend repeats	[]

CONDUCT OF VESSELS IN RESTRICTED VISIBILITY

Adapt the vessel's speed to prevailing conditions and be prepared for instant course and speed alterations.

Every vessel hearing another vessel's fog signal apparently forward of the beam, should reduce speed to a minimum or stop.

It should then exercise extreme caution until the danger of a collision is over.

SOUND SIGNALS FOR VESSELS IN RESTRICTED VISIBILITY (DAY AND NIGHT)

Description	Max period	Signal
Power under way and making way	every two minutes	
Power under way and not making way through water	every two minutes	
<ul style="list-style-type: none"> • Not under command • Restricted manoeuvring • Constrained by her draught • Sailing ship – not under power • Vessel fishing • Vessel towing or pushing 	every two minutes	
Vessel towed – if manned	every two minutes	
Pilot vessel on duty– gives normal signals above and may sound four short blasts		
Vessel at anchor (under 100m in length) BELL rung for five seconds	every minute	
Vessel at anchor (100m or more in length) BELL rung for five seconds from the bow of the vessel and then – GONG rung five seconds from the aft of the vessel immediately following bell signal	every minute	
Vessel at anchor – may give WARNING of possibility of collision to approaching vessel		
Vessel aground – as at anchor but preceded and followed by three separate and distinct BELL strokes		
Vessels under 12m in length may make the appropriate signals given above but, if not, must make some other efficient sound signal every two minutes		

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CHAPTER 12

EMERGENCY

PROCEDURES

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EMERGENCY PROCEDURES

COPING WITH EMERGENCIES

Most emergencies afloat can be avoided by good seamanship. However, they can happen on even the best maintained vessels so you need to be equipped to handle them. Not only do you need to carry safety equipment on board, you must know how to use it.

Reviewing and practising emergency procedures should be part of your boating habits.

ALL OCCUPANTS TO PUT ON LIFEJACKETS



RAISE THE ALARM

- **MARINE RADIO**

27MHz – Ch 88

VHF – Ch 16



- **PHONE**

Call 000



- **FLARES**

Activate when you see a potential rescuer or when you believe it will be seen



- **EPIRB**

Activate your distress beacon



STAY WITH YOUR BOAT



- A vessel is a lot easier to spot than a person
- Anchor your vessel to maintain position if safe to do so

RAISING THE ALARM

If you or your vessel are in danger it is important to raise the alarm. The way you do it is dependent on the emergency, but the call should be made as soon as the nature of the emergency is known.

RADIO

Distress/urgency procedure

- A distress signal is used only where there is grave and imminent danger to a vessel or person.
- An urgency message is used when help may be needed, but the danger is not grave and imminent.
- A safety signal is used when a station wants to pass important information concerning safety such as navigational or weather warnings.

Distress and urgency communications can be made on the following channels:

DISTRESS CHANNELS/FREQUENCIES	
Radio type	Channel/ frequencies
VHF	16 (67 alternative)
27MHz	88 (86 alternative)
HF (frequency)	4125, 6215 and 8291kHz



Distress call format

A distress message has absolute priority over all other transmissions and may only be transmitted on the authority of the master or the person responsible for the safety of your vessel.

Distress call

Distress signal (x3)	MAYDAY, MAYDAY, MAYDAY
Words "this is"	THIS IS
Station calling (x3)	MAPLE MS742, MAPLE MS742, MAPLE MS742

Distress message

Distress signal	MAYDAY
Name/call sign	MAPLE MS742
Position	5 NAUTICAL MILES SOUTH OF FAWKNER BEACON
Nature of distress	SWAMPED AND SINKING. ESTIMATE FURTHER 10 MINUTES AFLOAT
Other information (If time permits)	SEVEN METRE HALF CAB WHITE HULL WITH BLUE AWNING THREE PERSONS ON BOARD EPIRB ACTIVATED OVER

If no answer is received, repeat the distress call and message on the other distress frequencies or any other available frequency on which help might be obtained.

Alarm signal

An alarm signal is used to attract the attention of operators to the incoming message.

It produces a two-toned warbling sound which can be easily distinguished, even in poor reception conditions.

Distress messages prefixed "MAYDAY" repeated three times are to be used only in grave and imminent danger.

Urgency messages prefixed "PAN PAN" repeated three times are to be used when you or your vessel are not in grave and imminent danger.

Urgency call

When a distress call is not fully justified, the urgency call 'PAN PAN' (spoken three times) should be used to indicate that a very urgent message follows concerning the safety of a vessel or person. The call details should be the same format as for a distress message except with the message beginning: 'PAN PAN, PAN PAN, PAN PAN'.

Safety signal

Safety signals are used when a station wants to pass important information concerning safety such as navigational warnings or weather warnings and are identified by the word: SECURITE (spoken three times as SAY-CURE-E-TAY).

TELEPHONE

Call 000 or Water Police on 1800 135 729.

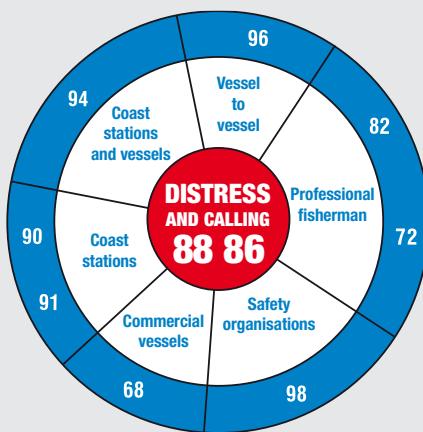
EPIRB (EMERGENCY POSITION INDICATING RADIO BEACON)

Once an EPIRB has been activated, leave it on until instructed by rescue authorities to switch it off. Your EPIRB is the best reference point for rescuers whose aircraft, vessels and vehicles may not be able to remain in the same location as you throughout the emergency.

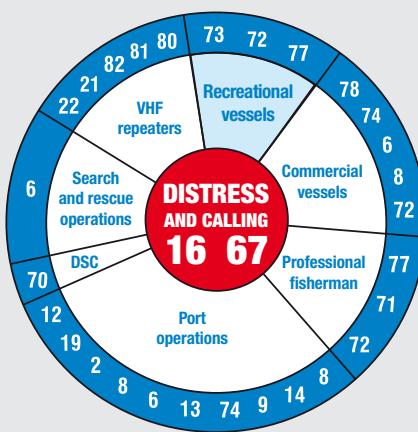
If you must abandon your vessel, attach the EPIRB to yourself, not the vessel.

While EPIRBs are required by law to be carried when operating more than 2nm from the coast, Transport Safety Victoria recommends operators on other waters also carry EPIRBs.

27MHz marine radio channels

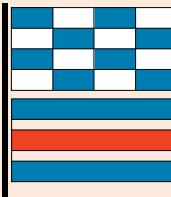


VHF marine radio channels



INTERNATIONALLY RECOGNISED DISTRESS SIGNALS

The following signals are some of those that are internationally recognised and indicate distress and need of assistance. Use of these signals except for the purpose indicated is prohibited.

Description	Signal	Description	Signal
1. Rockets or shells, throwing red stars fired one at a time at short intervals.		7. (a) A rectangle of the internationally accepted colour orange material with a black letter V	
2. (a) A signal made by any light or sound signalling method consisting of the group in the morse code – SOS (b) A signal sent by radio consisting of the spoken word, "mayday".	 	(b) A rectangle of the internationally accepted colour orange material with a black square and circle.	
3. A square flag having above or below it a ball or anything resembling a ball.		8. A dye marker (which releases coloured dye into the water).	
4. A rocket parachute flare or a hand-held flare showing a red light.		9. The international code signal of distress indicated by flag symbols NC.	
5. A smoke signal giving off orange-coloured smoke.		10. EPIRB (emergency position indicating radio beacon).	
6. Slowly and repeatedly raising and lowering arms outstretched to each side.		11. Oar with cloth on the end.	
		12. Continuous sound of fog horn.	

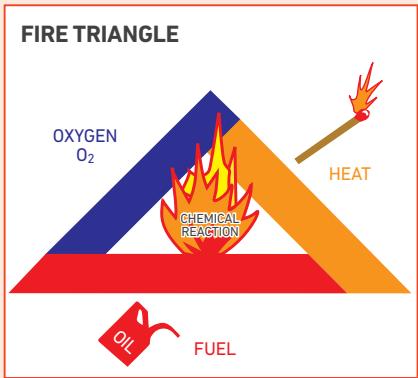
FIRE

THEORY OF FIRE

There are three elements of fire. If these elements are brought together in sufficient quantities then a fire will occur.

The elements are:

- FUEL
- HEAT
- AIR (OXYGEN)



Removal of any of these elements will extinguish fire. The element that is removed depends upon the agent used to extinguish the fire.

- **REMOVAL OF FUEL – STARVING**
- **REMOVAL OF HEAT – COOLING**
- **REMOVAL OF AIR – SMOOTHERING**

FIGHTING THE FIRE

- Raise the alarm (to others onboard and to rescue organisations).
- Manoeuvre the vessel to operate with the least wind effect (generally downwind).
- If within an enclosed or confined space, close all the hatches, vents and ports to reduce oxygen.
- If a burning object can be safely moved, get it over the side quickly.
- Shut off fuel lines and gas lines ASAP as flexible fuel lines may collapse and add to the fire.
- Try to extinguish the fire with fire fighting appliances and remember to direct the extinguisher into the heart of the fire not the flames.
- Maintain a watch on the area once the fire has been extinguished and monitor for any re-ignition.
- If you need to abandon the vessel, do not motor alongside another vessel.
- Leave the vessel on the windward side (upwind) to stay clear if the vessel drifts and any fuel spreads in the water.

In an emergency, make sure you are wearing your lifejacket.

HELPING ANOTHER VESSEL ON FIRE

As a master your responsibility lies first with your own vessel and all persons on it. Provide what aid you can reasonably give, according to your knowledge and experience, and your vessel's capabilities.

- Fires on other craft are indicated by large black smoke palls.
- Be extremely cautious as you approach and keep to the windward side of the vessel on fire.
- Remember most fires on small vessels originate from fuel, heating appliances, stoves, leaking gas or cooking fats and oils. Fuel and gas fires spread very quickly. Even a minor spill can create an almost explosive spread of flames.

MAN OVERBOARD

Should anybody fall overboard, do not jump in after them.

If a person falls overboard, initial actions should be:

1. shout "man overboard" to raise the alarm
2. throw a lifebuoy ring, horseshoe or lifejacket to them
3. check your bearings relative to prominent landmarks if available. Mark where the event occurred on a map, GPS or chart plotter. This will assist if a search is required
4. keep them in sight at all times. Ask someone on board to point continuously at the person in the water for the reference of the master and others on board who may be preparing equipment or other head-down activities
5. turn the boat toward the side they fell from (if the person is close to the propeller, put the motor in neutral or switch off the motor to avoid striking them with a turning propeller).

To recover the person overboard position the vessel to bring the person alongside, preferably into wind, then stop engines to avoid striking them with a turning propeller. Help the person into the vessel, preferably over the stern, as a small vessel might capsize or take water if you try taking them in over the side. On yachts with overhanging sterns, they should be pulled in at the lowest point of freeboard. Consider installing a boarding ladder on your vessel.

A person recovered from the water may be hurt, cold or exhausted. If they cannot help themselves, it is difficult to get them back into the vessel. Ropes, a sail or blanket may be passed under them in the water and used to lift and roll them back into the vessel. Keep the victim lying down if at all possible.

Practice your 'man overboard' drill often.

ABANDONING VESSEL

If your vessel capsizes and you are unable to right the vessel, abandon the vessel only as a last resort. Stay close to the vessel to improve your chances of being sighted by the rescue vessel. Do not remove your lifejacket, and if you are in the water, stay together in a HUDDLE or HELP position.

Do not try to swim ashore unless it is very close and a suitable landing place exists. Distances can be deceptive. Your vessel is easier to spot in the water than a person alone.

Try to get the EPIRB and distress signals out of the capsized vessel and raise the alarm. Make yourself as visible as you can to both ships and aircraft. Put on more clothes if you are able to. They will help to keep you warm and may delay the onset of hypothermia.

If abandoning your vessel, take the EPIRB and distress signals with you. Switch on the EPIRB and leave it on until emergency services tell you to turn it off.



If you do capsize, stay with your boat until help arrives. Your boat will be more visible than a person in the water.

COLD WATER IMMERSION

COLD SHOCK

Victoria's coastal waters range from about 9.5°C in midwinter to about 22°C in midsummer. Cold shock can kill long before hypothermia. When a person falls into water less than 15°C the first reflex is to gasp and then hyperventilate, during which it is extremely difficult to hold breath. The heartbeat may become very fast and irregular during this time. There is a high danger of drowning if the head is not kept above water. It may take several minutes to regain control of breathing and be able to climb back aboard if this remains possible.

Strength and coordination weaken quickly in cold water, typically in ten to fifteen minutes, so it is important to inflate lifejackets and rafts, and set off EPIRBs quickly for the best chance of survival and rescue. Prepare flares and signals next, so they are easy to access and deploy when help arrives.

Activity such as swimming will increase heat loss. Hypothermia commences when the body core temperature reduces, typically within an hour of immersion.

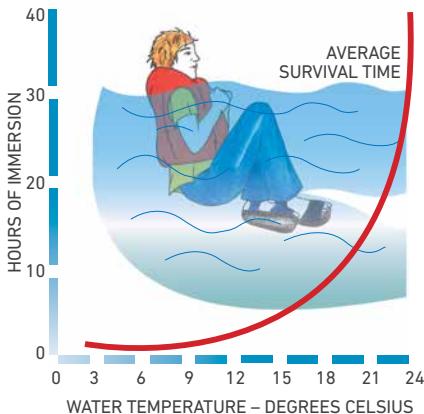
If you fall into cold Victorian waters you will generally have:

- 1 minute to get your breathing under control and keep your head out of the water
- 10-20 minutes of useful movement in which to get out of the water to prepare for rescue
- 1 to 3 hours before you become unconscious due to hypothermia.



HYPOTHERMIA

The term 'hypothermia' means lowering deep-body or core temperature. 'Immersion hypothermia' is an acute type of hypothermia produced when a person is immersed in cold water. The graph shows that an adult of average build could not expect to survive more than three hours of immersion in midwinter.



The time is very short when you consider the time lost before a search and rescue operation is under way.

The heat escape lessening posture (HELP) pictured above, combats hypothermia and can be a lifesaver to people in cold water.

The HUDDLE position can also be used if there is more than one person in the water. To reduce body heat loss, make sure you stay close (huddle together) and remain still.

WARNING: the consumption of alcohol, attempting to swim or movement in the water will cause the body to use up heat rapidly, which will hasten the onset of hypothermia.

When recovering a person from cold water, keep them lying down if at all possible to reduce the load on the heart. Treat the cold person as for hypothermia and watch carefully for breathing difficulties due to intake of water.

Key points for treatment

1. Remove the person from the cold-inducing environment.
2. Protect the person from cold wind.
3. Remove wet clothing if practical.
4. Warm victim with dry blankets, towels or skin-to-skin contact.
5. Warm the area of high heat loss, that is, head and neck, sides of chest, armpits, and groin. Do not warm, rub or massage limbs.
6. Observe the person for deterioration in condition.
7. Manage an unconscious person by placing them in the lateral position, making sure their airway is clear. Continue warming procedures.
8. Do not give the person alcohol.
9. Do not allow the person to walk around.
10. Seek medical assistance.

SEASICKNESS

In many cases, seasickness can be avoided if you sleep aboard the vessel the night before the voyage to let your body get used to the boat's motion. Of course, this may not be possible in small vessels. Otherwise, you can take seasickness tablets as advised by a chemist or a doctor, but be wary as some may make you drowsy.

If you feel seasick, keep busy and stay in the fresh air. Avoid the head down position, as this aggravates illness. Nibble on a dry biscuit, chew barley sugar or dried fruit. Ginger is also considered a good anti-seasickness remedy. Stay out of enclosed areas where fumes from fuel and food odours may temporarily collect.

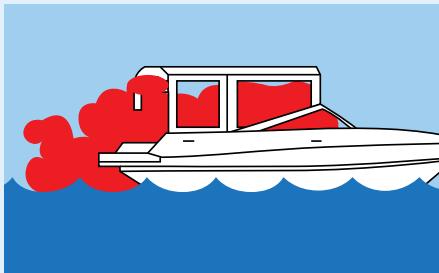
Experienced sailors keep their diet free of rich, fatty foods and alcohol, both before going to sea and while aboard.

CARBON MONOXIDE POISONING

Carbon monoxide is a common part of exhaust gases from engines, generators and stoves using any kind of fuel. It is colourless, odourless and very toxic. It is heavier than air so it accumulates in restricted spaces such as cabins and engine bays, and on low surfaces such as the water beside exhaust ports and under duck boards at the stern of powerboats.

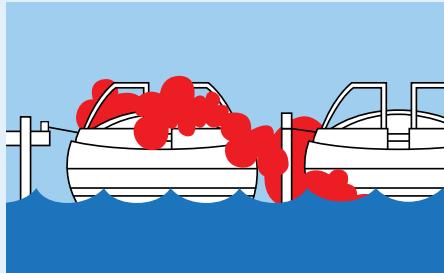
To avoid carbon monoxide poisoning:

- ensure inboard engines exhaust outside the vessel



- make sure canvas enclosures are adequately ventilated
- ensure stoves and fuel heaters are exhausted outside the cabin
- never use a gas range or oven for heating
- keep cabins and engine bays well ventilated
- make sure the engine bay vents are outside the cabin

- be aware of another vessel's exhaust. Carbon monoxide from the boat docked next to you can be just as deadly



- install carbon monoxide alarms in cabins and keep them serviced regularly
- be wary when external exhaust gases are blown by the wind into the cabin or into a sheltered part of the deck for any length of time
- always have your equipment installed and serviced by a competent person

Symptoms

- Dull headache
- Weakness
- Dizziness
- Nausea or vomiting
- Shortness of breath
- Confusion
- Blurred vision
- Loss of consciousness

Carbon monoxide poisoning can be especially dangerous for people who are sleeping or intoxicated.

Treatment

- get the victim into fresh air, being careful not to be exposed yourself
- seek immediate medical attention.

DON'T LET YOUR BOAT GO UP IN SMOKE

A photograph of a small boat on a body of water. The boat is completely engulfed in bright orange and red flames, with thick black smoke billowing upwards. The water reflects the fire and the surrounding environment. In the background, there are distant trees and a clear sky.

BE FIRE SAFE

REPORTING INCIDENTS AND ACCIDENTS

Always dial 000 in an emergency. If an incident has occurred but you are not in immediate danger, report it to Victoria Police on 1800 135 729.

Where death, injury or property damage occurs, report the incident details as soon as possible to the police officers present or to the police station nearest to where the accident took place.

Vessel operators involved in an accident must give assistance to other persons

involved, without endangering their own vessel, crew or passengers.

They must give their name, address, identification and registration details to (where applicable) any person injured, his or her representative, to the owner of any property damaged and to the police present at the scene.

Refer to chapter 1 about safety duties for further information about reporting incidents.

Incident reporting forms are available on the Transport Safety Victoria website at www.transportsafety.vic.gov.au.

 Before you sit your test to get your marine licence, would you like to check your knowledge about the information in this handbook? We have sample test questions available.

Download the questions from the Transport Safety Victoria website
www.transportsafety.vic.gov.au.

To have a copy mailed to you call **1800 223 022** or email
information@transportsafety.vic.gov.au.

CONTACTS AND LINKS

Maritime authorities and government agencies
state maritime authorities

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MARITIME AUTHORITIES AND GOVERNMENT AGENCIES STATE MARITIME AUTHORITIES

ACT/NSW

Roads and Maritime Services
www.maritime.nsw.gov.au

NT

Department of Transport
www.transport.nt.gov.au

QLD

Maritime Safety Queensland
www.msqa.qld.gov.au

SA

Department of Planning and Infrastructure
www.sa.gov.au

TAS

Marine and Safety Tasmania
www.mast.tas.gov.au

VIC

Maritime Safety Victoria
www.transportsafety.vic.gov.au

WA

Department of Transport
www.transport.wa.gov.au

NATIONAL MARITIME AUTHORITIES

Australian Maritime Safety Authority
www.amsa.gov.au

PORT AUTHORITIES

Gippsland Ports
www.gippslandports.vic.gov.au

Port of Hastings Development Authority
www.portofhastings.com

Port of Melbourne Corporation
www.portofmelbourne.com.au

Victorian Regional Channels Authority
www.regionalchannels.vic.gov.au

GOVERNMENT LINKS

Australian Communications and Media Authority
www.acma.gov.au

Bureau of Meteorology
www.bom.gov.au

Environmental Protection Authority
www.epa.vic.gov.au

Parks Victoria
www.parkweb.vic.gov.au

Play it safe by the water
www.watersafety.vic.gov.au

VICROADS

131171
www.vicroads.vic.gov.au

Victoria Police

www.police.vic.gov.au

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This handbook is intended as a guide only, and is not a substitute for the relevant legislation, legal or professional advice. Laws relating to the operation of recreational vessels change from time to time. Tests may change accordingly. If you have questions about this handbook, check with any of the VicRoads customer service centres listed at the back of this handbook, or contact Transport Safety Victoria on 1800 223 022.

For a complete knowledge of marine safety legislation and waterway rules, you should consult the *Marine Safety Act 2010* (Vic) and associated regulations and notices published in the Victoria Government Gazette. Copies of Victorian legislation and parliamentary documents are provided online at www.legislation.vic.gov.au or can be purchased from the Information Victoria Bookshop.

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- the staff of Transport Safety Victoria and its predecessor organisations
- Victorian and Commonwealth marine safety legislation including sections relating to international conventions such as the *International Regulations for Preventing Collisions at Sea* 1972 (COLREGS)
- the International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA)
- the South Australian Department of Transport, Energy and Infrastructure
- the Australian and New Zealand Safe Boating Education Group (ANZSBEG)
- VicRoads.



BOATING SAFETY IS NO ACCIDENT

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