

Safety Equipment Marine Radios Maritime



VHF repeater stations

A network of VHF repeater stations at strategic locations along the WA coast significantly extend the range of VHF radio transmissions out to sea.

To determine if a VHF repeater is available in your locality you should switch to a repeater channel and hold the microphone switch down and ask for a 'radio check'.

The nominal range of each repeater is 80km, but this will vary from repeater to repeater and it should also be noted that as VHF is essentially 'line of sight', some areas of coastline might be in a shadow zone.



VHF repeater station locations

Nearest location	Station site	VHF
Wyndham	The Bastion	80
	Lacrosse Island	81
Derby	Koolan Island	81
	The Water Bank Tower	22
Broome	Cape Leveque	82
		80
Christmas Island		81
		82
Cocos (Keeling) Island		20
Port Walcott	5-KP Tower	81
Exmouth	Charles Knife Canyon	21
	Naval Base	22
Coral Bay	Warroora	80
	Ningaloo Station	82
Carnarvon	Cape Covier	81
Denham	Steep Point	22
Kalbarri	Red Bluff	80
Geraldton	Rat Island Abrolhos	81
	Moresby Ranges	82
Jurien Bay	Mount Lesueur	21
Lancelin	Nilgen	22
Perth Metropolitan	Rottnest Island	81
Mandurah	Turners Hill	82
Dunsborough	Mount Duckworth	22
Cape Naturaliste	Radar Hill	80
Augusta	Hillview Golf Course	82
Windy Harbour	Cathedral Rock	81
Walpole	Young's Hill	21
Denmark/Peaceful Bay	Mount Shadforth	22
Albany	Mount Clarence	82
	Two Peoples Bay	81
Bremer Bay	Bremer Bay	80
Hopetoun	Hopetoun	21
Esperance	Howick Hill	21
	6 Mile Hill	22

Marine Rescue Western Australia and ACRM Base services

There are 39 Marine Rescue WA groups situated between Esperance and Kununurra including Christmas and Cocos (Keeling) Islands. In addition to the Marine Rescue WA groups, ACRM Base has a long history of coastal radio coverage in WA.

Some of the Marine Rescue WA groups provide a log on and log off service, but not all and each operate at different times of the day and night. Therefore contact your local radio base station prior to heading out on the water. Refer to the contacts page of this brochure and visit the Marine Rescue WA services website.

If there is no coverage in the area you plan to go boating, leave your vessel and voyage details with a responsible person and advise them to contact the police if you fail to return on time.



Monitored Radio Channels

Group	VHF & Repeater	HF
ACRM Capel	16 & 80/22	By Request
ACRM Denham	16	By Request
Albany	16 & 81/82	4125
Augusta	16 & 82	No
Bremer Bay	16 & 80	No
Broome	16	No
Bunbury	16	4125
Busselton	16/74 & 80/22	No
Carnarvon	16/73 & 81	4125
Christmas Is	16/73 & 80/81/82	2182/4125
Cockburn	16/73	No
Cocos Island	16 & 20	No
Coral Bay	16 & 80/82	4125
Dampier	16	No
Denmark	16 & 22	No
Derby	16 & 81	2182/4125
East Kimberley	16 & 80/81	No
Esperance	16 & 21/22	2182/4125
Exmouth	16 & 21/22	4125
Fremantle	16/73 & 82	2182/4125
Geraldton	16/72 & 81/82	4125
Hopetoun	16 & 21	No
Jurien Bay	16 & 21	4125
Kalbarri	16 & 80	No
Lancelin	16 & 22	4125
Leeman	16/73	No
Mandurah	16/77 & 82	4125
Margaret River	16 & 80	No
Naturaliste	16/74 & 80/22	No
Onslow	16	No
Peaceful Bay	16/77 & 22	No
Port Denison	16/73	2182/4125
Port Hedland	16	No
Port Walcott	16 & 81	No
Rockingham	16/74/81/82	4125
Shark Bay	16	No
Two Rocks	16/72	No
Walpole	16 & 21	No
Whitfords	16/77	4125
Windy Harbour	16 & 81	2182/4125

Contact details

Department of Transport

Email: Ed.Boat@transport.wa.gov.au
Website: www.transport.wa.gov.au/imarine
Marine Safety Hotline: 13 11 56

Police

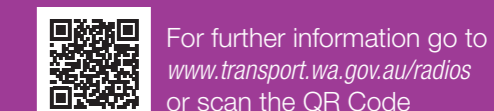
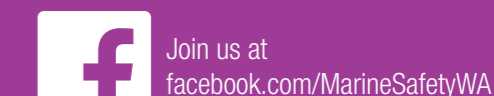
Emergency: 000
Water Police: 9442 8600

Department of Fire and Emergency Services

Marine Rescue Western Australia
Emergency contact: VHF 16

Boating Weather Forecasts

Boating weather: 1300 815 916
Website: www.bom.gov.au



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Marine radios

In an emergency, communication is vital and a marine radio is essential. Mobile telephones, although useful as a backup communications system, cannot replace a marine radio.

When you need to carry a marine radio

You must carry a marine band radio if you go more than four nautical miles from the shore in unprotected waters in a registrable vessel.

Registrable vessel: Vessels including sailing vessels that are or can be propelled by mechanical power.

Non-registrable vessel: Sailboards, kiteboards, windsurfers, paddle craft, tenders and sailing dinghies.

The choice of radio is up to you, it can be VHF or HF.

Which channels to use and when

Always listen on the distress channel and if you need to make a call, you can use this channel first and then switch to a working channel. When the call is finished, resume listening on the distress channel (and the working channel if needed using the dual watch function).

Using dual watch function

The dual watch (DW) function allows you to pre-program two different channels into your radio and monitor both by hitting the DW button. The first channel programmed should always be the distress channel. The second channel programmed can be your local working channel. Once these are programmed, it's easy to select each for use and automatically hear a call coming in on either channel.

Digital Selective Calling

If your vessel has a marine radio with Digital Selective Calling (DSC) capability, then you are advised to refer to the radio operator's manual to ensure you understand and are familiar with how to use the DSC function in an emergency.

DSC is a standard for sending pre-defined digital messages via the high-frequency (HF) and very-high-frequency (VHF) maritime radio systems. It is a core part of the Global Maritime Distress Safety System (GMDSS). DSC should be connected to the vessels GPS (Global Positioning System) so the latitude and longitude coordinates can be sent with the distress message. If you do not have your VHF radio connected to a GPS, you may be able to specify latitude and longitude manually (see manufacturer's instructions).

Licensing requirements and operating procedures

Operators of VHF and HF marine radios must hold an operator's certificate. Courses for this qualification are available at maritime colleges and Marine Rescue WA groups. A vessel fitted with HF marine radio must always have an individual station licence (renewable each year). This will allocate a radio call-sign to that vessel.

Details of licensing, including what certificates are required and how to obtain them, can be found on the Australian Communications and Media Authority website: www.acma.gov.au

Unauthorised use of radios

Marine radios have a very serious purpose. Falsely indicating distress wastes a lot of time and resources; possibly weakening the ability to respond to a genuine emergency, and carries a severe penalty.

Logging on and off

Skippers are advised to log on and off every time they go out on their boats with their nearest radio station. Typically a Marine Rescue WA group, Australian Coast Radio Monitors (ACRM) base or Water Police. The idea being that you log on with a radio station and let them know who you are, where you are going, when you will arrive back and log off on your return.

Logging on procedure

Logging on is a simple process and you'll know you've told someone responsible when you're due to arrive back and they will take the appropriate action if you haven't called in by then. If you change your planned time, call the radio station again and advise them of your change in plans.

This is an example of the radio call and the details the radio station will need to help find you in the event of an emergency:

You say: Marine Rescue WA Station, Marine Rescue WA Station, Marine Rescue WA Station - This is [vessel registration (3 times)] OVER.

Marine Rescue WA Station will reply: This is Marine Rescue WA Station please go to channel xx OVER.

You say: Going to channel xx (Change to channel xx and wait for Marine Rescue WA to call you).

Marine Rescue WA will call you 3 times (vessel rego) and say OVER.

You say: Marine Rescue WA Station this is [vessel rego] I wish to log on and supply them with the:

- vessel's name, registration number or call sign;
- departure time and location;
- destination;
- trip intentions;

- number of people on board;
- amount of fuel carried; and
- estimated time of return.

Logging off procedure

It is very important to remember to log off with the radio station that you logged on with, to avoid a search being initiated.

This is an example of the radio call and the details the radio station will need to take you off their log:

You say: Marine Rescue WA Station, Marine Rescue WA Station, Marine Rescue WA Station - This is [vessel registration (3 times)] OVER.

Marine Rescue WA Station will reply: This is Marine Rescue WA Station please go to channel xx OVER.

You say: Going to channel xx (Change to channel xx and wait for Marine Rescue WA to call you).

Marine Rescue WA will call you 3 times (vessel rego) and say OVER.

You say: Marine Rescue WA Station this is (vessel rego) I wish to log off.

VMR Station will say: Thank you for logging off.

You say: This is (call sign or vessel rego) thanks OUT.



A Log On Log Off sticker is available from DoT. Position it near your radio as a useful reminder.

Making a distress call

The distress call 'Mayday' may be used only if the boat is in grave and imminent danger and immediate assistance is required. The urgency call 'Pan Pan' should be used when use of the distress call cannot be justified but a very urgent message concerning the safety of your boat or a person needs to be transmitted. The safety call 'Securite' should be used if you wish to broadcast an important navigational warning.

A distress call is made on the distress channels; 16 using a VHF radio or 4125 using a HF radio.

A Mayday call

A Mayday call on one of the distress channels will attract the attention of land based radio stations and other vessels in your area. Stay calm, and explain your distress information clearly using the 3Ps; position, problem and the number of people on board.

Mayday procedure

"Mayday, Mayday, Mayday"

"This is [vessel registration]" (spoken three times)

"My position is ... [Details of the your position]"

"My problem is ... [Nature of distress]"

"I have # people on board" [Number of people]

This call can be repeated as often as necessary until answered. If no answer is received on distress frequencies, repeat the call on any frequency likely to attract attention.

Pan Pan urgency call

The Pan Pan urgency call should be used when the Mayday distress call cannot be justified but there is an urgent message to transmit concerning the safety of the vessel or the safety of a person (for example, mechanical breakdown, medical emergency or a man overboard).

Pan Pan procedure

"Pan Pan, Pan Pan, Pan Pan"

"Hello all stations, hello all stations, hello all stations"

"This is [vessel registration]" (spoken three times)

"My position is ... [Details of the vessel's position]"

"I require... [Details of assistance required and other information]"

Pan Pan urgency calls can be made on a distress frequency or any other frequency likely to attract attention.

Securite safety call

The Securite (Saycure-e-tay) safety call is used if you wish to broadcast an important navigational warning. However, a safety call is more likely to be made by a coast station or marine rescue group and may include important strong weather warnings.

Securite safety call procedure

"Saycure-e-tay, Saycure-e-tay, Saycure-e-tay"

"Hello all stations, hello all stations, hello all stations"

"This is [vessel registration]" (spoken three times)

"A hazard exists [Details of the warning or announcement]"