

► Definitions and terminology

Wind direction is given in 8 compass points for forecasts and 16 points for observations and is the direction the wind is coming *from*.

Wave height is the vertical distance between the top of the crest and the bottom of the trough.

Wind speed refers to the *average* speed over a 10-minute period at a height of 10 metres above the surface and is given in knots. One knot is equal to a speed of one nautical mile per hour. Note: 10 knots = 18.5 km/h and 10 km/h = 5.4 knots.

Gusts may be up to 40 per cent stronger than the average speed.

A **squall** is an abrupt and large increase of wind speed with a duration of the order of minutes which diminishes rather suddenly.

Sea and swell heights are described in terms of significant wave height which represents the average of the highest one-third of the waves. Some waves will be higher and some lower than the significant wave height. Typically one in 2000 waves will be twice this height.

King/Freak/Rogue waves occur when wind waves and/or a combination of swell waves join to produce a very high wave. These waves can be much larger than the significant wave height.

► Wind and warning categories

Category	Speed (knots)	Beaufort Force
Strong wind	26 to 33	6–7
Gale	34 to 47	8–9
Storm force	48 to 63	10–11
Hurricane force	64 or more	12

Note: Wind speed is a ten-minute average. Gusts may be up to 40% stronger.

► Coastal observations

Weather observations from coastal stations include local wind speed and direction. They may also include sea and swell reports, general weather and visibility. Observations are generally updated every half hour. These are available via the Bureau's website and marine radio.

Regular monitoring of reports is advised.

► Marine services access

Internet Marine services are available from the Bureau's website at <http://www.bom.gov.au/marine>.

HF marine radio

Voice: see inside page for details
 Radiofax VMC/VMW: a range of weather and marine charts is broadcast by radiofax. Schedule available from our website.

VHF marine radio

See VHF broadcast services for more information.

Phone (77* cents/min.)

1900 955 350 Perth local boating
 1900 926 150 WA coastal waters
 1300 659 223† Coastal warnings
 1300 659 210† Tropical cyclone warnings & advices
Fax (\$1.38* /min.) poll-fax 1902 935 329 for a reference directory of fax services.
 1902 935 720 Perth local waters
 1902 935 290 WA local waters

* Call costs apply (correct at time of printing) includes GST; more from mobile and public phones.
 † Local call cost.

mini-guide
to BUREAU OF METEOROLOGY

► MARINE WEATHER SERVICES

WESTERN AUSTRALIA

Weather warnings and forecasts

Wind warnings are issued whenever strong winds, gales, storm force or hurricane force winds are expected. They are issued with around 24 hours lead-time where possible, and are renewed every six hours.

Local waters forecasts for Perth (Yanchep to Mandurah and offshore to Rottnest Island) are issued four times daily out to four days ahead. Updates may be issued at other times.

Coastal waters forecasts for areas within 60 nautical miles of the coast are issued twice daily. Updates may be issued at other times. Forecasts include wind, sea and swell predictions out to four days ahead.

► HF radio voice frequencies

Warnings, Forecasts and Coastal Weather Observations are broadcast from VMW and VMC on the following HF radio frequencies:

VMW broadcasts on frequencies (kHz)		VMC broadcasts on frequencies (kHz)	
Daytime (7am–6pm) WST	4149, 16528	Daytime (7am–6pm) EST	4426, 16546
Night-time (6pm–7am) WST	2056, 6230	Night-time (6pm–7am) EST	2201, 6507
Anytime WST	8113, 12362	Anytime EST	8176, 12365

► Marine broadcast schedules

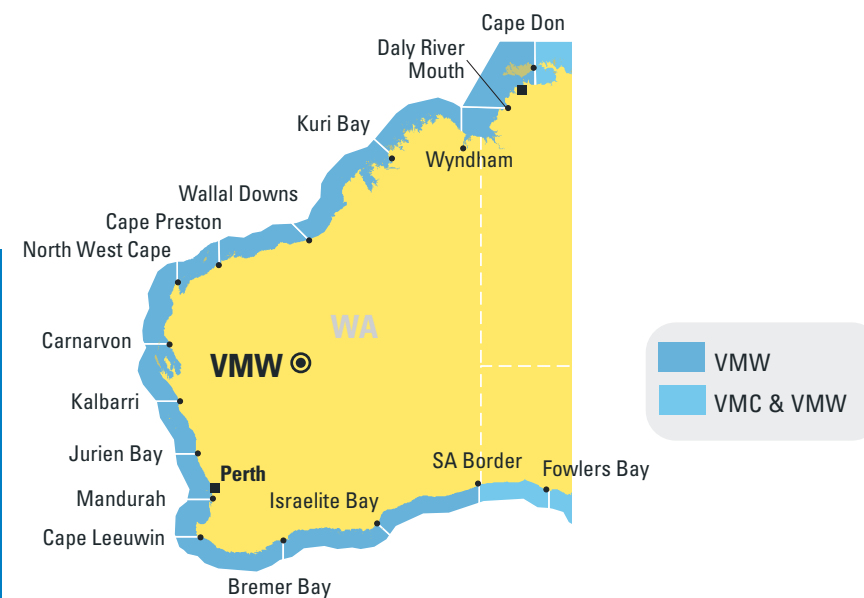
Forecast	Broadcast times#	Station
Western Australia	0030, 0430, 0830, 1230, 1630, 2030*	VMW
SA & NT	0300, 0700, 1100, 1500, 1900, 2300†	VMW
Northern High Seas	0000, 0400, 0800, 1200, 1600, 2000†	VMC
	0230, 0630, 1030, 1430, 1830, 2230*	VMW
South Eastern High Seas	0030, 0430, 0830, 1230, 1630, 2030‡	VMC
	0330, 0730, 1130, 1530, 1930, 2330*	VMW
Western High Seas	0230, 0630, 1030, 1430, 1830, 2230*	VMW

Warnings
Every hour
commencing
0000 WST

Add one hour during Daylight Savings Time

* Western Standard Time; † Central Standard Time; ‡ Eastern Standard Time

► Western Australian Coastal Water zones



► VHF broadcast services

VHF services from Bureau offices

Location/telephone no.	Channel	Forecasts (WST)
Broome (08 9192 1211)	72	0640, 1710
Carnarvon (08 9941 1321)	73	0605, 1205, 1605
Esperance (08 9071 5628)	72	0615, 1215, 1615
Geraldton (08 9923 3671)	73	0615, 0815, 1615

Water Police VHF

Location	Channel	Forecasts (WST)
Perth	16/67	0718, 1918

Marine weather forecasts are also broadcast through Volunteer Marine Rescue groups based in most population centres.



Australian Government
Bureau of Meteorology

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