

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 = 18.5km/h and 10km/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.

Combined 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.

Wave period is the number of seconds between each wave crest. The greater the period, the greater the energy and wavelength of the waves.

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.

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 969 923 all Qld waters
1900 926 115 SE Qld waters

Fax (\$1.38* /min.) poll-fax 1800 630 110 for a reference directory of fax services.

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

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)
Daytime (7am–6pm) EST 4426, 8176, 12365, 16546
Night-time (6pm–7am) EST 2201, 6507, 8176, 12365

VMC broadcasts on frequencies (kHz)
Daytime (9am–8pm) WST 4149, 8113, 12362, 16528
Night-time (8pm–9am) WST 2056, 6230, 8113, 12362

Marine broadcast schedules

Forecast	Broadcast times	Station
Eastern Gulf & QLD East Coastal Waters	0330, 0730, 1130, 1530, 1930, 2330*	VMC
NE High Seas	0030, 0430, 0830, 1230, 1630, 2030*	VMC
Eastern Gulf Waters	0030, 0430, 0830, 1230, 1630, 2030*	VMW

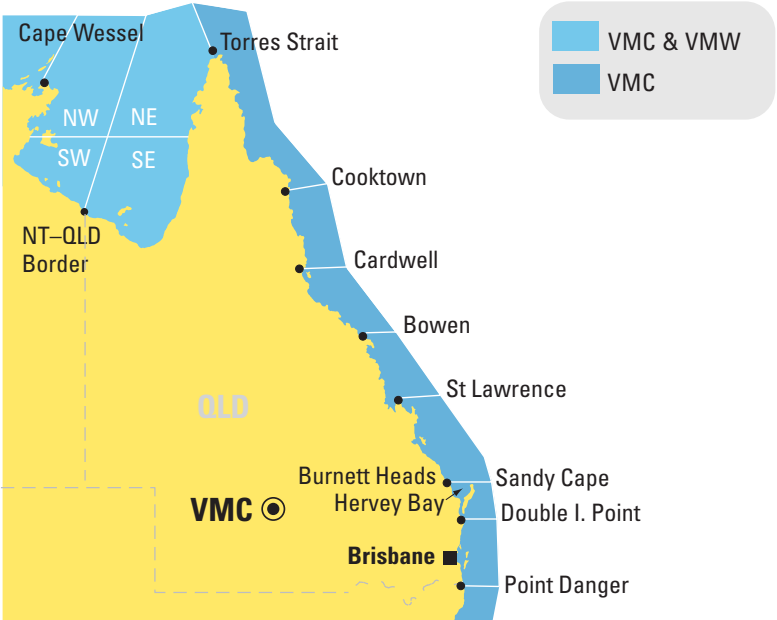
* Eastern Standard Time

Warnings Every hour commencing 0000 EST



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Queensland Coastal Water zones



VHF broadcast services

VHF Radio Services operate from the Bureau’s Cairns, Townsville, Mackay and Rockhampton Offices. The broadcasts include Coastal Waters Forecasts, Warnings and Observations for the areas covered. A listening watch is maintained on VHF Channel 16 in Cairns.

Location and coverage	VHF Channels	Broadcast times*
Cairns – for waters between Cooktown and Cardwell	16#, 81	Every 2 hours 0545 to 1745
Townsville– for waters between Cardwell to Bowen	16#, 72, 80	0815, 1215, 1715
Mackay– for waters between Bowen and St Lawrence	16#, 21, 80	0615, 1215, 1645
Rockhampton– for waters between St Lawrence and Burnett Heads	21	0520, 0705, 0920, 1205, 1705
and Keppel Bay	82	0540, 0650, 1150, 1650

* Eastern Standard Time
An initial announcement is made on Channel 16 prior to broadcast on other channels

mini-guide

to BUREAU OF METEOROLOGY

MARINE WEATHER SERVICES

QUEENSLAND

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.

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 three days ahead.

Routine High Seas forecasts are issued twice daily for the areas beyond the coastal waters surrounding Australia. High Seas warnings are issued whenever gale, storm force or greater winds are expected, and are renewed every six hours.