

6. Weather information

6.1 General

The prevailing winds are moderate to strong and predominantly from the southeast. Calmer conditions occur during the winter months. The terminal may apply their own wind restrictions.

A Tropical Cyclone Watch message is issued when a cyclone or potential cyclone is expected to affect conditions in the area within the next 48 hours and is reviewed every three hours. A Tropical Cyclone Warning message is issued when a cyclone or potential cyclone is expected to affect conditions in the area within the next 24 hours and is reviewed every three hours.

Severe weather can occur at any time of the year and an official cyclone season is defined between 1 November and the 30 April.

Weather charts, satellite images, warnings and reports may be polled by fax from 1800 630 100 and/or from the [Bureau of Meteorology](#).

[Coastwatch](#) is a website with useful nautical information links.

6.1.1 Extreme Weather Event Contingency Plans (Cyclone Procedures)

The Mackay region is particularly exposed to risks posed by tropical cyclones. It is imperative all mariners prepare for the possibility of one of these cyclones crossing the coast in their region during this period. The Mackay region is also exposed to severe local storms which can form with minimal warning and cause major damage to the local maritime industry. (For example, the devastating storm at Airlie Beach in February 2008).

In addition, the major commercial shipping ports of Mackay and Hay Point are particularly exposed to the prevailing weather and sea conditions with limited protection from a tropical cyclone and other extreme weather events.

[Extreme Weather Event Contingency Plans \(Cyclone Procedures\)](#) have been developed for the Mackay Region and are on the MSQ Website.

The prime intent of this plan is for masters to be aware of an approaching weather event and be prepared to take the necessary action to avoid the damaging impact to ships and the environment.

6.1.2 Tide Boards and Gauges

Hay Point is a standard Port in the Queensland Tide Tables. NQBP and MSQ have installed tide measurement systems in the following locations:

- Hay Point Tug harbour tide board and gauge (MSQ & NQBP); and
- Beacon #2 – Hay Point Channel (MSQ).

The boards refer to LAT and show the actual tide height above LAT. Maritime Safety Queensland provides tidal predictions for pilotage areas. The tidal times and heights for standard Queensland ports are available in the Queensland Official Tide Tables and Boating Guide and may be accessed at the [Bureau of Meteorology](#) website.

Tidal stream predictions for standard Queensland ports are available upon request through the Regional Harbour Master's Office.

Tidal Information			
HAT	7·14m	LAT	0·00m
MHWS	5·78m	MLWS	0·90m
MHWN	4·46m	MLWN	2·22m
For tidal stream data refer to Australian Pilot and hydrographic chart			

Table 15 - Tidal information

6.1.3 Tidal information – tsunami effects

The Northwest and East coasts of Australia are bordered by active tectonic plates which are capable of generating a tsunami that could reach the coastline within two to four hours. The resultant change in swell height could have an adverse effect on a vessel with a minimum under keel clearance navigating within or close to port areas.

The [Joint Australian Tsunami Warning Centre](#) (JATWC) has been established to monitor earthquake activity that may lead to a tsunami forming. Warnings are currently issued for the Pacific Ocean region by the Pacific Tsunami Warning Centre (PTWC) in Hawaii and for the Indian Ocean region by the Japan Meteorological Agency (JMA).

Mariners are advised to take heed of such warnings, plan their bar crossings and tend their mooring or anchorages accordingly.

6.2 Water density

Sea water is usually 1025 kg/m³ but will vary during the summer months after periods of heavy rain.

6.3 Strong Wind Warning & Engagement of Third Tug

A third tug may be required for vessels greater than 270m in length if a Strong Wind Warning is issued by the Bureau of Meteorology. Further details can be located in [section 9.3 Strong Wind Warning & Engagement of Third Tug](#).