6. Weather information

6.1 General

The prevailing southeast trade winds may blow strongly at times, making it difficult to berth. In these conditions it is prudent for the pilot, ship's master, tug masters and berth operator to liaise in order to determine whether berthing should be attempted.

Weather conditions do not normally affect departures.

Port operation may be affected by tropical cyclone conditions in summer months. The Regional Harbour Master (Townsville), pilot and berth operator will jointly decide when it is not safe for a ship to be alongside.

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.

Weather charts, satellite images, warnings and reports may be polled by fax - 1800 630 100 and from the <u>Australian Bureau of Meteorology</u>.

Alternatively, the following telephone numbers offer the listed information service.

1300 659 210..... tropical cyclone information

1300 659 210..... coastal marine warning

1300 878 6264.....current tsunami threat

6.2 Cyclone procedures

The Regional Harbour Master (Townsville) is responsible for shipping and navigation within the port of Abbot Point.

The management of <u>Abbot Point Bulk Coal Pty Ltd</u> is responsible for the offshore loading facility including safety for the berth and personnel on the facility.

6.2.1 Severe weather event

The Townsville region severe weather contignecy plan is located on the MSQ website (<u>Preparing</u> for extreme weather).

In the event of an extreme weather event threat the Regional Harbour Master will take the following action:

- Restrict the movement of vessels if necessary.
- Direct and oversee the evacuation of the port or specific areas of the port or other affected areas if applicable.
- Close and reopen the port if necessary.

The Regional Harbour Master will also:

- Advise mariners of relevant warnings and response requirements
- Seek compliance with the response requirements.

These actions will be enacted over four distinct phases that allows for the development of appropriate responses to the threats faced.

Phase 1: Extreme weather event – prevention

An extreme weather event watch will be issued when an extreme weather event or developing event is likely to affect the area within 48 hours, but not expected to impact the area within 24 hours. This phase is a critical time for masters and owners to plan and prepare for the impact of the event.

Phase 2: Extreme weather event – preparedness

An extreme weather event warning will be issued when an extreme weather event or developing event is likely to affect the area within 24 hours. This phase is critical for masters and owners to complete all preparations in an orderly manner prior to the event occurring.

Phase 3: Actual extreme weather event - response

By this phase, all vessels are expected to have enacted their vessel safety plans noting that the port may be closed and/or vessel movements restricted depending on the threat to safety of vessel movements or the environment. Mariners should note that it is likely to be too late to consider the safety of your vessel and that extreme weather conditions may limit the ability of emergency services to assist you should you run into difficulties. Your actions should be directed towards the safety of your ship, your crew and the environment.

If the port is closed, no vessel movements are expected.

Phase 4: After the extreme weather event has passed – recovery

The Regional Harbour Master will assess residual risks and determine the actions needed to be addressed. Do not assume that as the extreme weather event has passed and it is now safe to move your vessel.

Vessels are not to leave their cyclone moorings until the official all clear is given by the Regional Harbour Master.

Mariners should maintain a listening watch on the key VHF frequencies (refer the communication section).

Owners and masters of vessels should be aware that aids to navigation may be affected by the extreme weather event. Owners and masters should reference Notices to Mariners for the latest updates. Furthermore, port infrastructure will need to be inspected to ensure that facilities are fit for purpose.

Port closure

The Regional Harbour Master may close the port, wholly or in part, or restrict the movement of vessels in the pilotage area, commensurate with the threat to the safety of shipping or the environment. This can occur at any time prior to the event.

The closure of the port or restriction on vessel movements will, as far as practical, be implemented in consultation with key authorities and in a timely manner in order to minimise risks.

Reopening of the port

The pilotage area will not be re-opened until the Regional Harbour Master is satisfied that all danger has passed, and the pilotage area is safe for vessels to re-enter and following inspections and surveys to critical maritime infrastructure (for example navigational aids and wharves) as well as clearance of navigational hazards.

The vessel traffic services centre will coordinate the safe movement of vessels following the opening of the pilotage area in accordance with normal practice. Berths will be re-opened and operations resumed when wind and sea conditions are within operational limits.

Communication

The successful implementation of this plan relies on high quality communication of information and directions.

The vessel traffic services centre will implement the extreme weather event contingency plan on behalf of the Regional Harbour Master by acting as the central communications point for the duration and aftermath of the extreme weather event.

The vessel maritime control centre call sign is Abbot Point VTS

VHF channels 16, and 12 will be continuously monitored before and during the extreme weather event. Extreme weather watches, warnings and any directions will be issued on these channels.

If the plan requires actions such as port evacuation or closure will be coordinated by the Abbot Point VTS

6.3 Tidal information

The tidal flows are approximately parallel to the wharf with the ebb flowing at 300° (T) and the flood at 120° (T).

Abbot point is a standard port in the Queensland Tide Tables.

НАТ	MHWS	MHWN	MLWS	MLWN
3∙6m	2∙69m	2∙07m	0∙67m	1·29m

Table 10 – Tidal information

The tidal times and heights for standard Queensland ports are available in the Queensland Tide Tables and are also available on the <u>Bureau of Meteorology</u> website.

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

Real time tidal data is available on the Dynamic Underkeel Clearance System

6.3.1 Tidal information – tsunami effects

The north-west and east coasts of Australia are bordered by active tectonic plates which are capable of generating a tsunami that could reach the coast-line 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.