

# 7. Port Navigation and Movement Restrictions

## 7.1 General

Draft figures are related to a draft in salt water of density 1025 kg/m<sup>3</sup>.

## 7.2 Speed

The [Transport Operations \(Marine Safety\) Regulation 2016](#) sections 81, 83, 84 and 85 apply and refer to ships not being operated at a speed of more than 6 knots when within 30 metres of any wharf, boat-ramp or pontoon, a vessel at anchor or moored or made fast to a jetty. The whole of the Mackay Harbour is a declared 6 knot zone.

## 7.3 Movement Conditions

Ships are not to enter, depart or manoeuvre within the pilotage area unless tide, weather, transit time and traffic conditions allow the minimum UKC to be maintained as per the conditions specified in this section. VTS is to be consulted for determining the tidal window for the planned movement of a draft-restricted ship in the port.

The following conditions apply to vessel movements in the pilotage area of Mackay.

### 7.3.1 Under keel clearance

Ships are not to enter, depart or manoeuvre within the pilotage area unless tide, weather, transit time and traffic conditions allow the minimum UKC of 1.3m or 10% of the draft, whichever is greater to be maintained until the ship is clear of the pilotage area.

The master is to ensure that the ship maintains a minimum UKC of at least 0.6m while alongside any berth; this may require loading operations to be adjusted to suit UKC conditions.

Vessels conducting dredging operations are exempt from under keel restriction. UKC limit for dredgers is set at 0.3m.

Maximum draft is equal to channel depth + tide ( $\pm$  tide correction) – required UKC

### 7.3.2 Arrivals

Manoeuvring parameters for all arrivals are:

- The propeller is to be fully immersed,
- The trim is to be not more than 2.5m by the stern,
- Trim by the head is not permitted.

Ships greater than 200m LOA are accepted on a case-by-case basis, with LOA not to exceed 230m and beam not to exceed 35.0m, depending on destination berth.

#### Maximum Wind Speeds

For the following vessels the maximum 10 minute average wind speed for berthing is 20 knots:

- Vessels greater than or equal to 200m LOA arriving outside daylight hours
- RoRo vessels

- Passenger vessels
- Tankers with UKC less than 2m

For all other vessels the maximum 10 minute average wind speed for berthing is 25 knots.

Ships with displacement greater than 55,000 and RoRo's are approved to berth in Mackay subject to the following conditions:

- The Steering Gear Room is to be manned during pilotage for emergency manual intervention if required.
- 2 tugs with a minimum bollard pull of 65mt are available.

A ship greater than 100m LOA may only enter the Port at slack water:

- Ships will weigh anchor with sufficient time to make Pilot Boarding Place. If late pilot may refuse boarding due to tidal window closure.
- Slack water occurs approximately 1 – 1.5 hours prior to high and low water.
- Pilot will board 1 hour before the time of slack water. Transit start time will be 45 minutes prior to slack water. Dual movements on a slack water will only be considered on a case-by-case basis.
- The minimum UKC for manoeuvring ships must be maintained at all times during transit.

Weather and /or swell conditions may vary the arrival time and/or maximum allowable draft.

### 7.3.3 Shifting Vessels (Warping)

The movement of a vessel along a continuous uninterrupted stretch of wharf may be conducted by the master of the ship without pilot and/or tug services, subject to the requirements of the RHM. The intended removal must be submitted to the VTS at least 2 hours prior to the commencement of the movement and will be approved based on the following conditions.

- Permission has been granted by the terminal.
- The master advises Mackay VTS before commencement and again when the vessel is made fast.
- The ship's lines remain ashore at all times; and
- If wind gust speed at Mackay Harbour is 26 knots or above the move cannot occur without RHM permission.
- The master retains the responsibility to ensure the manoeuvre is conducted safely.

### 7.3.4 Departures

Manoeuvring parameters for all departures are:

- The propeller is to be fully immersed,
- The trim is to be not more than 2.5m by the stern,
- Trim by the head is not permitted.

A ship must not leave the berth later than 1 hour 30 minutes before the time at which its UKC becomes less than the minimum UKC for ships manoeuvring. This is to ensure sufficient time to clear the Port approaches.

Maximum 10 minute average wind speed for all departures is 35 knots unless specified below:

- Vessels equal to or greater than 200m LOA, RoRo or Passenger vessels – 25 knots

Weather and /or swell conditions may vary the sailing time and/or maximum allowable draft.

### 7.3.5 Scheduling Rules

Agents should schedule movements with the following separation times in mind:

- Departure followed by an arrival 1hr 30 mins
- Departure followed by a departure 2hrs 30 mins
- Arrival followed by a departure 2hrs

Adjustments may be made by VTS depending on berth and availability of pilotage.

### 7.3.6 Pilot card and manoeuvrability data

The following vessels are to submit pilot and manoeuvrability data if it is the ships first visit to the Port of Mackay or if the data has changed since the last visit:

RoRo

Passenger vessels

Vessels equal to or greater than 200m LOA

Agents refer to appendix [16.5](#).

## 7.4 Approaches to Pilot Boarding Place (AUS 249)

Vessels from the south and east should make for the pilot boarding area on the line of the 277.5° leading beacons as charted. Vessels are to be at the pilot boarding place and no further than .5 of nautical mile at pilot boarding time.

To avoid Downward Patches which lie 111°(T), four nautical miles from the sea leads, deep draft vessels should not come south of the sea leads until Flat Top Island bears 220°(T). To avoid the off-lying reefs at Slade Island, vessels should be brought onto the line of the leads before approaching within three nautical miles of the port.

Vessels making for the outer harbour steer in with the sea leads in line bearing 277.5° (T) until the entrance leads can be seen.

### 7.4.1 Dangers

Llewellyn Shoal, with 4.57 metres at lowest astronomical tide, is the southern-most of the Blackwood Shoals, and lies 019° (T), 10.75 miles from the disused lighthouse on Flat Top Island.

Oom Shoal, with 7.1 metres at lowest astronomical tide, lies 050° (T) five miles from the harbour entrance.

Blackwood Shoals are a number of shoals and knolls of loose white-coloured sand, having from 1.8 to 5.5 metres of water over them and extending 10 nautical miles north-east from the coast between Slade Point and Shoal Point.

Dangerous Reef lies nearly midway between Flat Top Island and Slade Island that covers at half flood and is marked by a buoy exhibiting Q. (3)10s. There is however a clear passage between this reef and the mainland.

Taroba Shoal lies about 0.75 miles north-east from the centre of Round Top Island.

Slade Island Reef, and the shoal water surrounding the reef is cleared by keeping the Sea Leads in line bearing 277.5°(T) and is marked by a buoy exhibiting V.Q.(3) 5 sec.

## 7.5 Vessels Loading Grain

A vessel loading grain must adhere to:

- the IMO Code of Safe Practise for the Safe Loading and Unloading of Bulk Carriers (BLU Code) and
- the IMO Code for the Safe Carriage of Grain in Bulk (Grain Code).

Because Mackay Port lies in a cyclone region where vessels may be required to sail at short notice, the following additional requirements must be followed during the cyclone season from November to April inclusive.

- The vessel must have **no more** than TWO slack hatches at **any** stage of the loading, and
- Satisfy the requirements of the Grain Code at the completion of each pour.

Outside the cyclone season these requirements are recommended as;

- the vessel remains in a seaworthy condition during loading, and
- the loading times are reduced due to fewer hatch changes.

Delays and stoppages impact on the loading time frame (impending threat of a cyclone) and may last over 24 hours where:

- insects are identified in the cargo and further fumigation is required;
- the cargo holds have not been previously cleared by quarantine, or
- there is insufficient cargo on site to complete loading.

Stoppage and delays can be kept to a minimum through good quality planning and preparation prior to the vessel berthing.

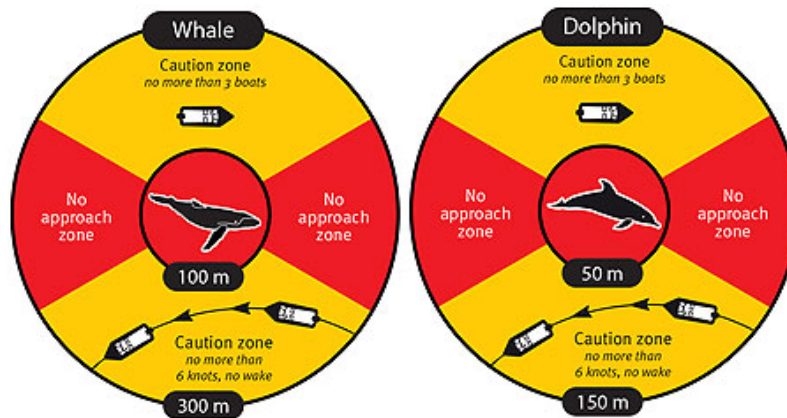
The official cyclone season starts at the beginning of November and ends on the 30 April. Though rare, cyclonic conditions can occur outside this period.

## 7.6 Advisory Note – Interaction with Marine Mammals

The presence of whales or marine mammals indicates that our ports are seen as environmentally attractive places.

The safety of life and the security of the environment from ship-based incidents is paramount.

All vessel masters are required to fully comply with relevant marine mammal legislation, such as the provisions of the [Nature Conservation \(Animals\) Regulation 2020 Chapter 6 Part 1](#) which prescribes minimum approach distances and maximum speeds within proximity to whales as illustrated in the diagram below:



**Figure 1 Minimum approach distances and maximum speeds within proximity to whales and dolphins**

When whales or marine mammals are reported in the vicinity of port areas and a risk to marine mammals is perceived, then every possible endeavour will be undertaken to manage shipping movements around the marine mammals to keep them safe, provided the safety of life, the ship and other environmental protection objectives are not threatened. Such action may include not commencing transits until the mammals are deemed clear.

In situations where a vessel is underway and restricted in its ability to manoeuvre or constrained to a channel and marine mammals are reported in the vicinity of the transit and a risk to marine mammals is perceived, the master must take all reasonable action necessary to keep them safe, without endangering the vessel, crew and the environment. Such action may include the reduction of speed to the minimum safe speed to safely navigate the channels.

Masters are required to report collisions with marine mammals to VTS and Department of Environment and Science **1300 130 372**

Refer to [Marine wildlife strandings](#)