7. Port navigation and movement restrictions

7.1 General

Draft figures are related to a draft in salt water of density 1025 kilograms per cubic metre.

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 six knots when within 30 m of any wharf, boat ramp or pontoon, a vessel at anchor or moored or made fast to a jetty.

The Regional Harbour Master (Cairns) will be responsible for all movements within harbour limits. No ships will enter or depart the port without the permission of the Regional Harbour Master (Cairns).

7.3 Channel depths and SUKCs

Table 14 Channel depths and SUKCs

Channel	Design depth at LAT (m)	Static UKC (m)
Departure Channel	13.9	10% draft
Amrun Port berth pocket	15.9	1·6

Please refer to the Notices to Mariners for the latest depth information.

Note DUKC program is in use. Refer Section 7.6.

7.4 Approaches to Amrun

Duyfken Point is some 300 nm east-south-east of Cape Wessel and 120 miles south from Booby Island. It consists of four small sandy tree covered low hillocky points, with shallow reefs extending over one nm to the south and west. These hillocks, about 21 m high, are the only conspicuous features of this part of the coast.

Albatross Bay is extensive and, with the exception of Duyfken Point, uniformly low as far as its southern extremity. This area, named Boyd Point, lies 22 nm from Duyfken Point and is conspicuous as at that point there are some reddish cliffs six to nine m high. The Mission and Embley Rivers flow into the bay to form the Weipa/Amrun Peninsula.

7.4.1 Sailing directions for arrival

Pilot boarding should not be undertaken when wind conditions reach approximately 30 knots or exceed 35 knots and significant wave height exceeds 2.5m or the current is running in excess of 0.6 knots.

From the pilot boarding ground, the Amrun Jetty is approached from the NW in SE'ly conditions.

When vessels should steer a course of 163°T, on the leading light, until 2 miles from the jetty when course should be altered to 180°T when abeam of the jetty vessels should then swing to starboard and berth bow to seaward on a heading of 298°T.

Vessels may also approach from the NW in N'ly conditions if the pilot deems it safe to do so.

From the SW in N'ly conditions.

When vessels should steer a course of 073°T, on the leading light, until 2 miles from the jetty when course should be altered to 000°T and swing to port when the jetty is 45° on the starboard bow berthing bow to seaward on a heading of 298°T.

7.4.2 Sailing Directions for Departure

The current sets across the facility and can run in excess of 0.6knots. Vessels will experience increased squat when entering the shipping channel.

Deep laden ships that require a tidal window may depart on a falling tide when the departure time is no later than 1 hour prior to the tide falling to a level when minimum UKC cannot be maintained.

For all departures the current is to be 0.5 knots or less.

Departing vessels should maintain a course over the ground of 298° until clear of the departure channel and proceed to the Pilot Disembarkation Ground situated 12° 54.50'S 141° 34.81'E.

7.4.3 Dangers

Mariners should be aware of the soft corals approx. 1 mile NW of the berth bearing 343°T with a depth -13m LAT and two soft coral areas SW of the berth distance 400m and 1000m depth -9.0m and -10.0m LAT respectively.

7.5 Draft restrictions

Weather, tidal conditions or special circumstances, may require a departure from these guidelines.

A vessel is 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 until it clear of the pilotage area.

The Regional Harbour Master (Cairns) is to be consulted for determining the tidal window for the planned movement of a draft-restricted ship in the port.

7.5.1 SUKCs – alongside berths

The master is to ensure that the ship maintains a SUKC of 1.6 m while alongside; this may require loading operations to be adjusted to suit tidal conditions.

7.5.2 Dredge Under Keel Clearance Requirements

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

7.6 Dynamic UKC program (DUKC)

A dynamic under keel clearance (DUKC) program has been installed in the port for deep draft vessel transits operated from the Cairns VTS centre.

Vessels utilising DUKC for departure are not to leave the berth until the master has received a copy of the DUKC report from either the Pilot or their shipping agent.

DUKC methodology determines the UKC required for a given transit using the most accurate modelling techniques available and is the primary tool for determining sailing drafts and transit times. For each section of the transit, each UKC factor is individually determined based on the forecast environmental conditions, channel configuration, vessel dimensions, load state and speed.

DUKC methodology removes the requirement for UKC allowances to be unnecessarily conservative in favourable conditions. Extreme conditions are accounted for as required, with UKC allowances increased accordingly to provide additional safety.

The DUKC program is used to determine the tidal window for vessels to depart or to determine the maximum draft that a vessel may sail at for a particular tide. The predictions are provided at eleven hours before the appropriate high water and updated six hours before the departure tide and indicate the sailing time and maximum draft.

Masters of vessels with a departure draft over 10 m are required to supply information prior to their arrival via their agent to Weipa VTS on the Port of Amrun form (section 16.1).

If the DUKC program is not working calculations will revert to a static calculation based on:

> Maximum draft = channel depth + tide +/-residual - required UKC (refer 7.3 Channel Depths and SUKCs).

Siltation occurs regularly and ships will be advised the maximum permissible sailing draft prior to commencement of loading at Amrun

7.7 Berthing and sailing times

Berthing and sailing times may be varied to take account of ships draft and other shipping movements.

7.8 Restricted areas

7.8.1 Waterside Security Zone

A waterside restricted zone extends 100 m from the Amrun Wharf, including the mooring dolphins. Vessels not involved in port operations, including recreational vessels are strictly prohibited from entering the waterside restricted zone. Note that Chith Export Facility includes a marked small boat passage under the shoreward end of the jetty for small local vessels.

7.9 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* prescribes which prescribes minimum approach distances and maximum speeds within proximity to whales as illustrated in the diagram below.

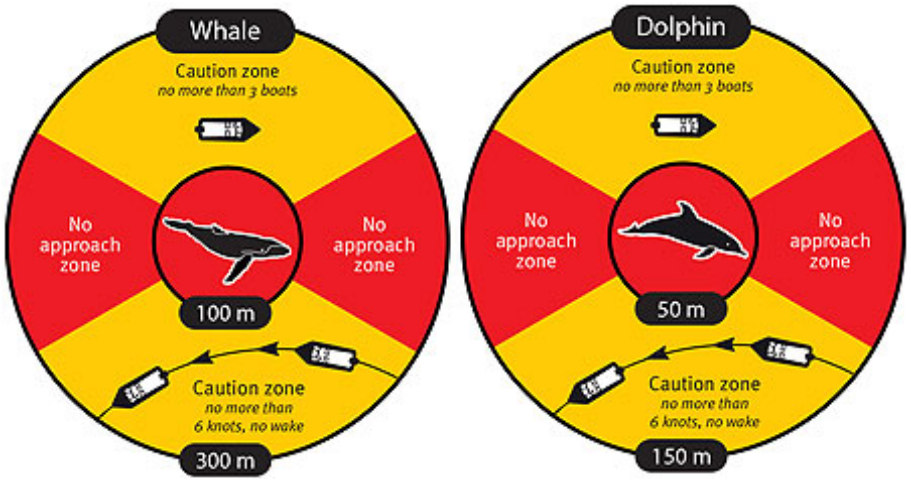

Figure 1 Minimum approach distances and maximum speeds within proximity to whales and dolphins

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**

Marine wildlife strandings | Environment, land and water | Queensland Government (www.qld.gov.au)