How to use your Beacon to Beacon Guides

Navigation information

Many aspects of the maps have been designed for local conditions. Although the maps are suitable for navigation under the IALA buoyage system (http://www.msq.qld.gov.au/Safety/Navigation-buoys-marks-and-beacons), some of the symbol standards have been modified for use in Queensland. For example, navigation aid symbols may be shown in similar colours as you would see out on the water.

**Changes in channels and banks**: Changes may result in navigation aids being moved from their charted position, altered, removed or new navigation aids being established. Changes to most navigation aids can be found on the Maritime Safety Queensland website (www.msq.qld.gov.au) under Notice to Mariners.

**Clearances for overhead bridges, cables and pipeline crossings**: Shown above Highest Astronomical Tide (HAT). The deepest channel may not always occur at the clearance height or centre of the crossing. Cable clearances are generally given for the lowest point of sag. Cable TV wire may decrease the available height on some crossings. Clearances may not be available for all crossings. **Maintain a proper lookout**. Due to the extent of coverage of the Beacon to Beacon Guides, waterways crossings clearances and positions may become dated. Should you have any doubts about crossings, contact your local council or utility company.

**Compass bearings**: True bearings may be converted to magnetic bearings by applying the compass variation. You can calculate the magnetic declination for any point when using the maps in the Beacon to Beacon Guides, by visiting the Geoscience Australia website at http://www.ga.gov.au/oracle/geomag/agrfform.jsp and following the onscreen instructions. The item called “D” is your magnetic variation and the field “dD” is the rate of annual change.

**Dates of soundings**: Due to the extent of coverage of the Beacon to Beacon Guides, soundings may become dated. As required, areas are surveyed for specific projects. Navigation aids are maintained to ensure that when following beacons and buoys, you should generally be in the best water available but conditions can change frequently so keep a proper lookout. When travelling outside of marked channels, particularly following significant floods, travel slowly and with a proper lookout (or depth sounder). Where surveys have been taken, sweeping the seabed for obstructions has not been undertaken.

**Damaged or defective aids to navigation or marine infrastructure**: Damaged or defective aids may be reported to Maritime Safety Queensland. To report this, visit the “Contact us” page on the Maritime Safety Queensland website at http://www.msq.qld.gov.au/About-us/How-to-contact-us/Regions.aspx.

**Horizontal datum**: GDA94. Compatible with WGS84 for general navigation. Ensure your GPS receiver is set to GDA94 or WGS84 datum. Selective availability of satellites may degrade your observed position.

**Map projection**: Universal Transverse Mercator (UTM) Zone 56 with latitude and longitude values shown in degrees and minutes with decimals (for example, latitude 26° 25.267’ S).

**Place names**: May not always be official place names. Please check the official place names website at Department of Natural Resources and Mines at www.dnrm.qld.gov.au/mapping-data/place-names if using any name in a legal context.

**Public boat ramps, pontoons and jetties**: These destinations are shown. Other facilities may be private (no access) whilst commercial facilities may charge a fee.

**Speed restrictions**: Restrictions shown on the maps as an approximate dashed line indicate restrictions for all recreational vessels and/or recreational vessels over 8m. To determine the speed restriction that applies to your recreational vessel, review the list of gazetted speed restrictions on the Maritime Safety Queensland website at www.msq.qld.gov.au under waterways > speed limits.

**Submarine and overhead cable crossing**: Information is based on data provided by the responsible authority and is not guaranteed. At some scales, not all crossings may be shown over navigable waters. Do not anchor on or near submarine cables or pipelines and always keep a proper lookout.

**Vertical Datum**: Lowest Astronomical Tide (LAT). Depth ranges in metres

**Ship Navigation Area**: The use of Ship Navigation Areas (also known as Shipping Fairways) are not mandatory for ships but strongly recommended. The International Regulations for Preventing Collisions at Sea 1972 apply to all vessels (including recreational) navigating within, crossing, or near the Ship Navigation Area and anchoring in the area should be avoided except in emergency. For more information see https://www.msq.qld.gov.au/Safety/Ship-navigation-area-warning.
Reading the maps

1. Depth of water over 5m at Lowest Astronomical Tide (LAT).
2. Depth of water between 2m to 5m at LAT.
3. Depth of water between 1m to 2m at LAT.
4. Depth of water between 0m to 1m at LAT.
5. Depth of water between HWM and 0m at LAT (drying sand banks).
6. Mangrove areas.
7. Saltpan areas.
8. Land areas above the tide.
9. Overhead power lines with safety clearance shown, where known, above Highest Astronomical Tide (HAT) and generally at the lowest point of sag. Often marked by signs on the shore. Keep a good lookout overhead at all times for power lines. Due to scale or currency, not all overhead power lines may be shown.
10. Where known, clearances in metres of structures (bridges, pipelines) above HAT. The deepest channel may not occur at the point of maximum clearance.
11. Scale bar in nautical miles and kilometres. One international nautical mile = 1852m.
12. Latitude and longitude in degrees and minutes, and at larger scales with decimals of a minute.
13. Approximate magnetic north.
14. True north lies along the lines of longitude.
15. If lit, the light characteristic and if applicable, the name or identifier of the navigation aid.
16. Adjoining map number or adjoining charts (AUS) published by the Australian Hydrographic Service may be referred to. These maps and charts may be at different scales.
17. Anchorage sites.
18. A life jacket should be worn in or near areas where this symbol is shown or when crossing coastal bars.
19. Warnings or cautionary notes.
20. A suggested track intended only to show which side a vessel should pass navigation aids. The track should not be considered as an accurate prescribed course. Navigation aids shown on maps may not keep pace with changes in channels, depths and banks. A careful lookout should be maintained at all times.
21. A suggested track (dashed) where an enforceable speed limit exists for safety or environmental reasons.
22. Marine rescue services contact details. Note that w/e means weekends, p/h means public holidays.
AIDS TO NAVIGATION

All charts conform with the IALA Maritime Buoyage System “A” for red to port and green to starboard when entering port or in the direction of buoyage.

The actual location of all navigation aids is at the centre of the circle at the base of the symbol.

Heights of navigation aids, if shown, are above Mean High Water Spring tides.

DIRECTION OF BUOYAGE: Keep red to port, green to starboard if travelling in the direction of the arrow.

NET indicates a numbered navigation aid. Not all numbers are shown.

LATERAL MARKS: mark defined channels in the direction of buoyage.

**PORT:** exhibits a red light when lit. **STARBOARD:** exhibits a green light when lit.

Beacons, Buoys

CARDINAL MARKS: indicate navigable water for the area beyond the mark in the direction depicted.

NORTH

WEST

SOUTH

EAST

Lighted marks all exhibit a WHITE light.

SPECIAL MARKS: indicate several features (eg: pile outfall) where navigable water is usually evident from the map.

Exhibits a yellow light when lit.

ISOLATED DANGER MARKS: are stationed over a submerged hazard. KEEP CLEAR.

Exhibits a white light when lit.

SAFE WATER MARKS: indicate fairway markers, mid channel, with navigable water all round.

Exhibits a white light when lit.

EMERGENCY WRECK MARKS: placed as close as possible or in a pattern around the wreck.

MARINE PARK BUOYS:

CHANNEL LEADS: indicate a line of safe water. Bearings are true from seaward.

Back Lead 5° 2° 264° 5°

Lights may be of any colour to distinguish from background lighting.

LIGHTHOUSE:

PEL LIGHT:

BRIDGE LIGHT NAVIGATION SPAN:

| SYMBOLS |
|-----------------|-----------------|
| Anchorages | Boat ramp (public) |
| Waterway sign | Wreck (partially above low water) |
| Sunken wreck or reef | Rock: Submerged hazard |
| Rock edge | Pilot boarding point; Ship anchorage |
| Tower; Pile | Buoy mooring |
| Marine rescue services | Life jacket (designated coastal bar) |
| Swimming enclosure | Bridge (clearance) |
| Footbridge (clearance) | Wer |
| Lock | Overhead cable |
| Overhead pipeline | Submarine cable (shown dashed if submerged) |
| Submarine pipeline | Road |
| Suggested small craft track | Track |
| Suggested small craft track (speed restricted) | Suggested small craft track (speed restricted) |
| 1 metre contour (blue if approximate) | 2 metre contour (blue if approximate) |
| 5 metre contour (blue if approximate) | 10 metre contour (blue if approximate) |
| 25 metre contour (blue if approximate) | Dries at low tide (LAT) |
| Water depth 0m to 1m deep | Water depth 1m to 2m deep |
| Water depth 2m to 5m deep | Water depth deeper than 5m |
| Mangroves | Rocky foreshore |
| Reef areas (submerged or washed) | Ship navigation area |
| Marine National Park Zone (no fishing) | Go slow for turtles and dugongs |
| Go slow for natural features | Go slow - vessels over 8m in length |

LIGHTS AND COLOURS

Lights on aids to navigation exhibit the following colours

R = red  G = green  Y = yellow  Bu = blue  Or = orange  No colour = white

ABBREVIATIONS:

F = Fixed, Fl = Flashing, Q = Quick Flashing, Oc = Occulting, V = Very, L = Long, I = Interrupted, Iso = Isophase, Al = Alternating, U = Ultra, M (A) = Morse Code (A), F(3) = Group Flashing 3 secs, Q(3) = Group Quick Flashing 3 secs, Dr = Directional
The maps contained in each free booklet of the Beacon to Beacon Guides are based on information that is as accurate as possible at the time of publication. You should regularly check the Maritime Safety Queensland website (www.msq.qld.gov.au) and download the latest booklet for the areas that you intend to travel. The maps are updated regularly with a revision date shown for each map. Alternatively, you may update your own copy by checking the same website for Notices to Mariners. The maps are aimed at recreational users of Queensland waterways and should be used as a guide for navigation. Care should be taken when navigating outside waterways not marked by navigation aids. For comprehensive navigation charts for offshore areas, you should use official charts as published by the Australian Hydrographic Service (www.hydro.gov.au).

You may print for free as many copies of the booklet and/or maps as you need. The maps are designed for inserting into your own clear plastic A4 size “envelopes” available from most newsagents or department stores.

Acknowledgements

Moreton Bay Marine Park “green” and “go slow” zones courtesy of the Department of National Parks, Sport and Racing. There may be more marine parks, “green” and “go slow” zones declared for areas other than those shown for Moreton Bay. In particular, data for the Great Sandy Strait marine park is not available. For more details on marine parks (including maps for Great Sandy Strait), visit www.npsr.qld.gov.au/parks.

Waterways crossings compiled from information sourced from the appropriate local government and utility organisations.

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