

NAVIGATIONAL MARKERS FOUND ON SYDNEY HARBOUR AND WHAT THEY MEAN

The NSW Waterways Authority and Queensland Transport mark navigable channels with a system of buoys, beacons and lights. In common with many boating authorities around the world, the NSW and Qld authorities use a uniform coding system of navigational marks, known as "Buoyage System A". The system provides a better-organised and safer way of coding our navigational waters.

It is your responsibility to know the various types of markers you will see on the water, as they are used to mark safe navigational channels as well as hazards to boating. *Note: to head upstream means to proceed in a direction away from the sea.*

Types of Marks

1. LATERAL: Indicates port and starboard sides of a channel.

Red can *Keep this port side mark on your left when going upstream, to the right when heading downstream.*




At night, the port buoy shows a red light.

Green cone *Keep this starboard side mark on your right when going upstream, to the left when heading downstream.*



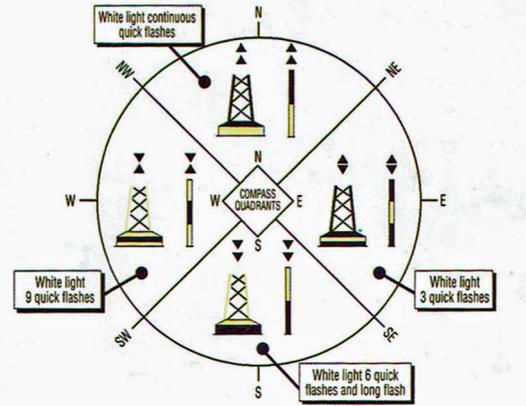

At night, the starboard buoy shows a green light.



Ferries approach Neutral Bay wharf on the southern side of the south cardinal mark shown in this photo. It's safer for kayakers to keep on the northern side when in this area (but be aware of potential back wash from the harbour wall).

2. CARDINAL: Indicates that deeper water lies in the direction shown; that is, north, south, east or west. The Top Marks are black double cones which are clearly separated, and the colours are black and yellow horizontal bands, with the position of the black band or bands relative to the respective cones.

A cardinal mark can be used in conjunction with a compass to show safe passage, and usually marks a feature such as a reef, a bend in a channel, junction, or the end of a shoal.



NORTH CARDINAL MARK

The North Cardinal has its topmark cones pointing up, with a black band above the yellow band.



At night, it exhibits a white light continuously flashing.

EAST CARDINAL MARK

The East Cardinal has its topmark cones pointing outward, with the black marks above and below the yellow band.



At night, it exhibits a white light flashing in groups of three (3).

SOUTH CARDINAL MARK

The South Cardinal has its topmark cones pointing down, with the black band painted below the yellow band.



At night, it exhibits a white light flashing in groups of six (6), then one long flash.

WEST CARDINAL MARK

The West Cardinal has its topmark cones pointing inward, with the black band sitting between yellow bands.



At night, it exhibits a white light flashing in groups of nine (9).

3. ISOLATED DANGER

Indicates isolated danger of limited extent with navigable waters all around them – **but don't pass too close!**



The topmarks are vertically positioned black spheres which are clearly indicated.

The colour is black with one or more red horizontal bands.



At night, it exhibits a white light flashing in groups of two (2).

4. SAFE WATER

Indicates that there is navigable water all round that position; for example, a mid-channel buoy would indicate safe water.



The topmark is a single red sphere.

The colour is red, with white vertical stripes.



At night, it exhibits a white light flashing at equal intervals with one long flash every 10 seconds, followed by a period of darkness.

5. SPECIAL MARKS: Indicate a special area or feature such as traffic separation marks, ground marks, or cable and pipe marks, including outfall pipes. They are also used to define a channel within a channel; for example, a channel for deep draught vessels in a wide estuary where the limits of the channel for normal navigation are marked by green and red lateral buoys.



A yellow can is kept on your left side, a yellow cone is kept on your right side – just the same as for lateral markers – while a yellow sphere can be passed on either side.

When a topmark is carried, it takes the form of a single yellow X.

