

Cardinal marks

Cardinal marks indicate the position of a danger and the direction of the safe side on which to pass it. Cardinal Marks are constant in both IALA buoyage systems with distinctive yellow and black colours, topmarks, and white lights.

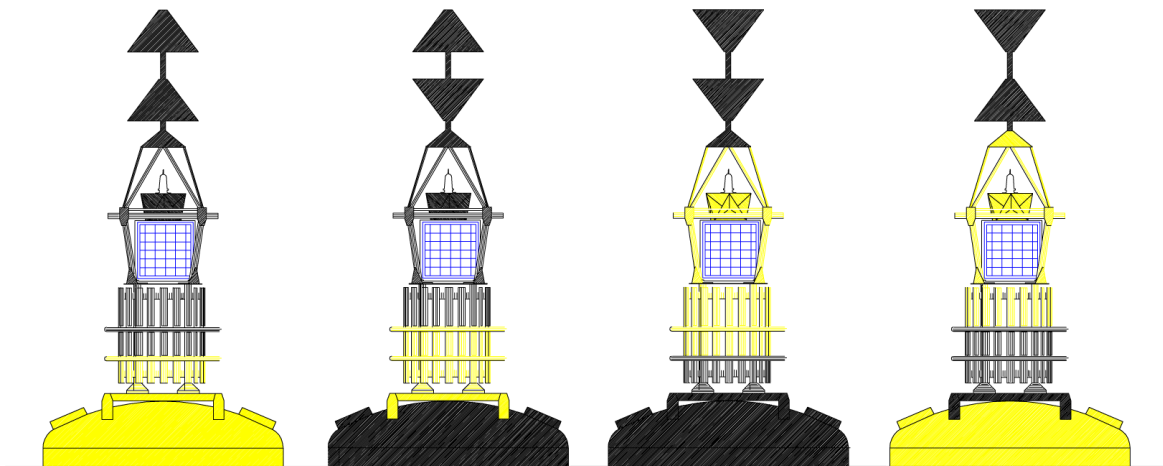
The cardinal points of a compass point to the four main directions; North, East, South and West.

Cardinal marks make use of these directions to indicate to vessels at sea where they can find 'safe water' in relation to the identified hazard relevant to your safe navigation.

A cardinal mark is named after the quadrant in which it is placed.

Due to the unique way cardinal marks use the points of a compass to signal safety it makes them meaningful regardless of the direction of the approaching vessel.

They are an instruction to navigate north, east, south or west of them according to their type and whether they are relevant to your safe navigation.



If we look closely here we can see that the top mark on the North Cardinal buoy is 2 cones pointing up and to the North, and the black band is at the top. So we can think of this as the cones pointing north and to the location of the black band.

The East Cardinal has cones pointing both up and down and we can see that the black bands are at the top and bottom.

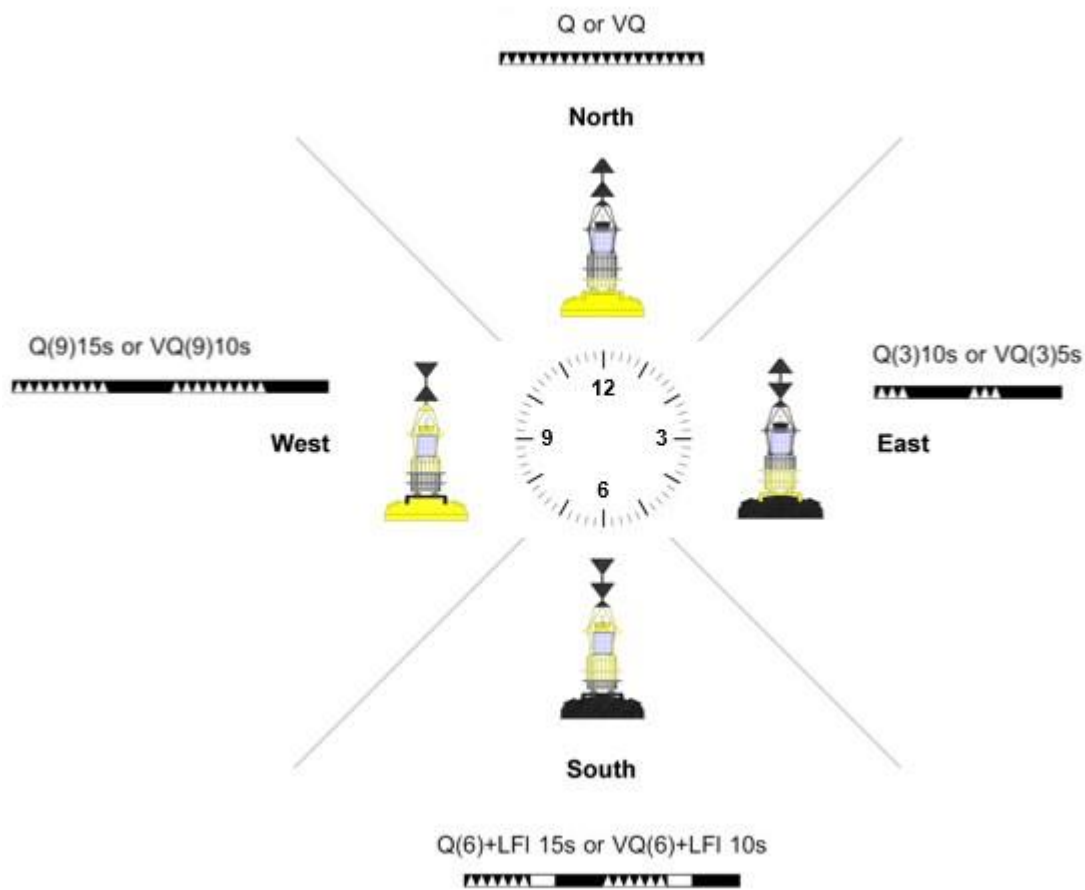
The South Cardinal has cones pointing down and to the South, and the black band is at the bottom.

And the West Cardinal has cones pointing to the centre – and has a single black band in the centre.

So by this means, whether we can see the cones or the black banding we should be able to identify which cardinal mark we are seeing.

The North and South Cardinals are easy to remember, and a helpful aide memoire for East and West is that the East cones can be thought of as having an Easter egg shape, and the West cones give the shape of a tightly drawn waist.

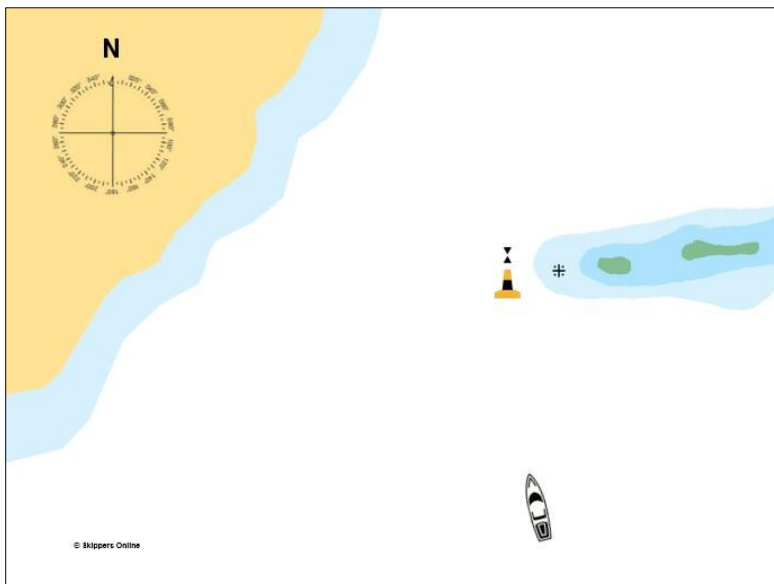
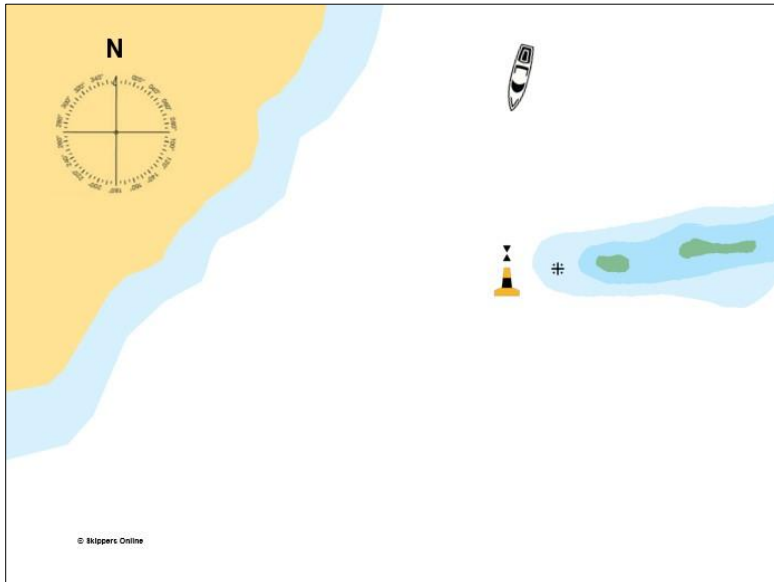
When approaching a cardinal marks (or any type of buoyage) the distance at which you first see the buoy will depend on a number of factors including, its size, visibility and sea state. However, as a rule of thumb in good conditions the buoy should be visible within 2Nm and the characteristics should become clear at around 1Nm (you will often see the colours before the topmark)



Cardinal marks that are lit have a white light, and the sequences relate to a clock face. So, an East Cardinal Mark is 3 flashes, South at 6 o'clock is 6 plus one long flash, and West at 9 o'clock is 9 flashes. North is continuous. These could be either quick (Q) or very quick (VQ) – *this would allow for identification where for instance 2 Cardinal Marks of the same kind were in close proximity marking different hazards.*

	TOP MARK	COLOURS	LIGHT SEQUENCE
North	Cones point up (north)	Black at top	Continuous flash
East	Cones point up and down – looks like an EASTer egg	Black at top and bottom	3 flashes
South	Cones point down (south)	Black at bottom	6 flashes plus one long
West	Cones point towards middle – like a waist	Black in middle	9 flashes

When we're approaching a cardinal mark, we need to take account of our course in order to determine whether to leave it on our port or starboard side. Here we are approaching a westerly cardinal from the north, on a southerly course, so we leave it to port.



Whereas here we're approaching the buoy from the south, so we must alter course to port in order to leave it on our starboard side.