Collision regulations for vessels in sight of one another

1. Application

The following rules 11-18 applies to vessels in sight of one another. (Section III has specific requirements for restricted visibility)

2. Sailing vessels

Two sailing vessels approaching one another must give-way as follows:

- **Port gives way to Starboard.** When each has the <u>wind</u> on a different side, the vessel which has the wind to port must give way;
- Windward gives way to <u>leeward</u>. When both have the wind on the same side, the vessel which is windward must give way to the vessel which is leeward;
- Unsure port gives way. If a vessel, with the wind on the port side, sees a vessel to windward and cannot determine whether the other vessel has the wind on the port or the starboard side, they must give way.

3. Overtaking

An overtaking vessel must keep out of the way of the vessel being overtaken. 'Overtaking' means approaching another vessel at more than 22.5 degrees abaft her beam, i.e. so that at night, the overtaking vessel would see only the stern light and neither of the sidelights of the vessel being overtaken. [4]

4. Head-on situations

When two power-driven vessels are meeting head-on both must alter course to starboard so that they pass on the port side of the other. 'Head-on' means seeing the other vessel ahead or nearly ahead so that by night her masthead lights are actually or nearly lined up and/or seeing both her sidelights, or by day seeing a similar aspect of her. [4]

5. Crossing situations

When two power-driven vessels are crossing, the vessel which has the other on the starboard side must give way and avoid crossing ahead of her. [4]

6. The give-way vessel

The give-way vessel must take early and substantial action to keep well clear. [4]

7. The stand-on vessel

The stand-on vessel shall maintain her course and speed, but she may take action to avoid collision if it becomes clear that the give-way vessel is not taking appropriate action, or when so close that collision can no longer be avoided by the actions of the give-way vessel alone. In a crossing situation, the stand-on vessel should avoid turning to port even if the give-way vessel is not taking appropriate action. These options for the stand-on vessel do not relieve the give-way vessel of her obligations under the rules.^[4]

8. Responsibilities between vessels

Except in narrow channels, traffic separation schemes, and when overtaking (i.e. rules 9, 10, and 13)

- A power-driven vessel must give way to:
 - o a vessel not under command;
 - o a vessel restricted in her ability to maneuver;
 - o a vessel engaged in fishing;
 - o a sailing vessel.
- A sailing vessel must give way to:

- o a vessel not under command;
- o a vessel restricted in her ability to maneuver;
- o a vessel engaged in fishing.
- A **vessel engaged in fishing** when underway shall, so far as possible, keep out of the way of:
 - o a vessel not under command:
 - o a vessel restricted in her ability to maneuver.
- Any vessel other than a vessel not under command or a vessel restricted in her ability to manoeuvre shall, if possible, not impede the safe passage of a vessel constrained by her draft, exhibiting the signals in Rule 28.
- A vessel constrained by her draft shall navigate with particular caution having full regard to her special condition

Action to avoid collision

Actions taken to avoid collision should be:

- positive
- obvious
- made in good time

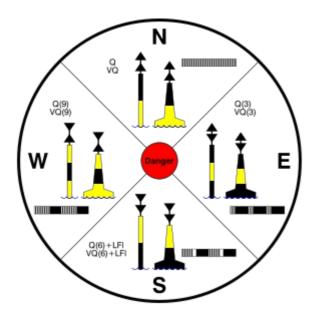
9. Narrow channels

- A vessel proceeding along a narrow channel must keep to <u>starboard</u>.
- Small vessels or sailing vessels must not impede (larger) vessels which can navigate only within a narrow channel.
- Ships must not cross a channel if to do so would impede another vessel which can navigate only within that channel.

10. Traffic separation schemes

Ships must cross traffic lanes steering a course "as nearly as practicable" at right angles to the direction of traffic. This reduces confusion and enables that vessel to cross the lane as quickly as possible.

Cardinal mark



딥

Diagram of cardinal marks as seen during the day, with their light patterns.

A **cardinal mark** is a <u>sea mark</u> (a <u>buoy</u> or other floating or fixed structure) used in maritime <u>pilotage</u> to indicate the position of a hazard and the direction of safe water.

Cardinal marks indicate the direction of safety as a <u>cardinal</u> (<u>compass</u>) direction (<u>north</u>, <u>east</u>, <u>south</u> or <u>west</u>) relative to the mark. This makes them meaningful regardless of the direction or position of the approaching vessel, in contrast to the (perhaps better-known) <u>lateral mark</u> system.

The characteristics and meanings of cardinal marks are as defined by the <u>International Association of Lighthouse Authorities</u>.

A cardinal mark indicates one of the four compass directions by:

- the direction of its two conical top-marks, which can both point up, indicating north; down, indicating south; towards each other, indicating west; or away from each other, indicating
- its distinctive pattern of black and yellow stripes, which follows the orientation of the cones the black stripe is in the position pointed to by the cones (eg at the top for a north cardinal, in the middle for a west cardinal)
- optionally, its distinctive sequence of flashing light, which consists of a sequence of quick or very quick flashes whose number gives the <u>clockface</u> position which corresponds to the direction of the cardinal (eg three for an east cardinal, nine for a west; north has continuous flashes, and south may be augmented with a long flash, to help distinguish it from a west in difficult conditions)

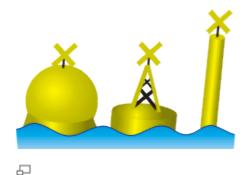
The topmark configurations for north and south are self-explanatory (both cones pointing up, or both pointing down). Those for east and west "follow the Sun"—the top cone points in the direction in which the <u>rising</u> (for an east mark) or <u>setting</u> (for a west mark) Sun appears to move with respect to the horizon, while the bottom cone points in the direction in which its reflection on the ocean surface appears to move. (An alternative memory aid is to see cones pointing inwards as a waist ("west"), and cones pointing out forming an egg ("east").

In the diagram, the light sequence is indicated by the white-banded pattern and the notation Q (for *quick*) or VQ (*very quick*). Either the quick or the very quick sequence may be used; the choice allows for two similar nearby marks to be uniquely identified by their lights.

A cardinal mark may be used to accomplish the following:

- Indicate that the deepest water is an area on the named side of the mark
- Indicate the safe side on which to pass a danger
- Draw attention to a feature in a channel, such as a bend, junction, branch, or end of a shoal
- Draw attention to a new danger such as a grounded ship. In such cases two equal marks are
 often placed together to indicate that it's a newly marked danger and is not yet printed in
 official maps.

Special mark



Examples of Special Marks

A **Special Mark**, as defined by the <u>International Association of Lighthouse Authorities</u>, is a <u>sea mark</u> used in maritime <u>pilotage</u> to indicate the boundary of an obstruction, administrative area such as a speed limit, water skiing or mooring area, or to highlight other features such as outfall sewerage pipes.

It is recognisable by its yellow colour and X top-mark.

Safe water mark



Examples of Safe Water Marks

A **Safe Water Mark**, as defined by the <u>International Association of Lighthouse Authorities</u>, is a <u>sea mark</u> used in maritime <u>pilotage</u> to indicate the end of a channel implying that open, deep and safe water lies ahead. The marker is also sometimes known as a **Fairway Buoy**.

It is recognisable by its red and white vertical stripes and commonly bears a top-sign in shape of a red ball. Lighted buoys flash morse code "A".

Isolated danger mark



Examples of Isolated Danger Marks

An **Isolated Danger Mark**, as defined by the <u>International Association of Lighthouse</u> <u>Authorities</u>, is a <u>sea mark</u> used in maritime <u>pilotage</u> to indicate a hazard to shipping such as a partially submerged rock.

It is recognisable by its black and red bands and top-mark of two black balls.

Lateral mark

A lateral <u>buoy</u>, lateral post or lateral mark, as defined by the <u>International Association of Lighthouse Authorities</u>, is a <u>sea mark</u> used in maritime <u>pilotage</u> to indicate the edge of a channel.

Each mark indicates the edge of the safe water channel in terms of <u>port</u> (left-hand) or <u>starboard</u> (right-hand). These directions are relative to the *direction of buoyage*; this is usually a nominally <u>upstream</u> direction. In a river, the direction of buoyage is towards the river's source; in a harbour, the direction of buoyage is into the harbour from the sea. Where there may be doubt, it will be labelled on the appropriate <u>chart</u>. Often the <u>cardinal mark</u> system is used instead, when confusion about the direction would be common.

A vessel heading in the direction of buoyage (eg into a harbour) and wishing to keep in the main channel should:

- keep port marks to its port (left), and
- keep starboard marks to its right.

Region A

- port marks are **red** and may have a **red** flashing light of any rhythm.
- starboard marks are green and may have a green flashing light of any rhythm.

