

CHAPTER 2A

INTERNATIONAL REGULATIONS FOR THE PREVENTION OF COLLISION AT SEA (1972)

PART A - GENERAL

RULE 1 – APPLICATION

- a. The abovementioned rules shall apply to **all vessels upon the high seas and in all waterways connected therewith, navigable by seagoing vessels.**
- b. Appropriate authorities may make special rules for harbours, roadsteads, rivers, lakes or inland waterways connected with the high seas and navigable by seagoing vessels, provided that such rules shall comply as closely as possible to these rules.
- c. Governments of states may make special rules with respect to additional station or signal lights or shapes or whistle signals for ships of war and vessels proceeding under convoy or signal lights for fishing vessels fishing as a fleet. These additional lights, shapes or whistle signals must be of such a nature that they cannot be confused with any light, shape or whistle signal contained in these rules.



Modern aircraft carrier



Modern frigate



Modern submarine

- d. Traffic separation schemes may be adopted by the international maritime organisation (IMO) for the purpose of these rules.
- e. If it is determined that a vessel of special construction or purpose cannot comply fully with the provisions of these rules, the government concerned shall ensure that any deviations from these rules shall comply as closely as possible with the rules in respect of such vessels.



Diamond mining vessel

RULE 2 – RESPONSIBILITY

- a. Nothing in the rules shall exonerate any vessel, owner, master or crew from the consequences of any neglect to comply with the rules or of the neglect of any precaution which may be required by the ordinary practice of seamen.
- b. In interpreting and complying with these rules, due regard shall be had to all dangers of navigation and collision and to any special circumstances, including the limitations of the vessels involved, which may make a departure from these rules necessary to avoid immediate danger.

RULE 3 – GENERAL DEFINITIONS

- a. The word “vessel” includes every description of water craft, including non-displacement craft (hovercraft, hydrofoils), WIG (wing-in-ground effect) craft and seaplanes, used or capable of being used as a means of transportation on water..



Hovercraft



Hydrofoil

- b. The term “power driven vessel” means any vessel propelled by machinery.
- c. The term “sailing vessel” means any vessel under sail provided that propelling machinery, if fitted, is not being used.
- d. The term “vessel engaged in fishing” means any vessel fishing with nets, lines, trawls or other fishing apparatus which restrict manoeuvrability, but does not include a vessel fishing with trolling lines or other fishing apparatus which do not restrict manoeuvrability.

- e. The term “seaplane” includes any aircraft designed to manoeuvre on the water.



Catalina sea plane



Seaplane used mostly on inland waterways

- f. The term “vessel not under command” means a vessel which through some exceptional circumstance is unable to manoeuvre as required by these rules and is therefore unable to keep out of the way of another vessel.
- g. The term “vessel restricted in its ability to manoeuvre” means a vessel which from the nature of her work is restricted in her ability to manoeuvre as required by these rules and is therefore unable to keep out of the way of another vessel. The term “vessel restricted in her ability to manoeuvre” shall include but not limited to:
 - i. a vessel engaged in laying, servicing, or picking up a navigational mark, submarine cable or pipeline;



Cable repair vessel

- ii. a vessel engaged in dredging, surveying or underwater operations;



Survey vessel



Dredger

- iii. a vessel engaged in replenishment or transferring persons, provisions or cargo whilst underway.



Vessels engaged in replenishment whilst under way

- iv. a vessel engaged in the launching or recovery of aircraft:



Vessel operating helicopters



Aircraft carrier operating aircraft

- v. a vessel engaged in mine clearance operations;



Mine hunter

- vi. a vessel engaged in a towing operation such as severely restricts the towing vessel and her tow in their ability to deviate from their course.



Oil rig being towed. Tug's manoeuvrability severely restricted.

- h. The term “vessel constrained by her draught” means a power driven vessel which, because of her draught in relation to the available depth and width of navigable water, is severely restricted in her ability to deviate from the course she is following.
- i. The word “underway” means a vessel is not at anchor, or made fast to the shore or afround.
- j. The term “making way” means the vessel is actually being propelled by machinery or sail through the water.
- k. The words “length” and “breadth” of a vessel means her length overall and greatest breadth.
- l. Vessels shall be deemed to be “in sight” of one another only when one can be observed visually from the other.
- m. The term “restricted visibility” means any condition in which visibility is restricted by fog, mist, falling snow, heavy rainstorms, sandstorms and any other similar cases.
- n. The term “Wing-In-Ground (WIG) craft” means any multimodal craft which, in its main operational mode, flies in close proximity to the surface by utilising surface-effect action.



WIG craft on the water



WIG craft "in flight"

- o. The term "mile" means nautical mile (1852 metres).

PART B – STEERING AND SAILING RULES

SECTION I – CONDUCT OF VESSELS IN ANY CONDITION OF VISIBILITY

RULE 4 : Application.

Rules in this section apply to any condition of visibility.

RULE 5: Look-out.

Every vessel shall at all times maintain a proper look-out by sight as well by hearing as well as by all available means appropriate in the prevailing circumstances and conditions so as to make a full appraisal of the situation and of the risk of collision.

RULE 6: Safe Speed

Every vessel shall at all times proceed at a safe speed so that she can take proper and effective action to avoid collision and be stopped within a distance appropriate to the prevailing circumstances and conditions. In determining a safe speed the following factors shall be among those taken into account:

- a. By all vessels.
 - i. The state of visibility.
 - ii. The traffic density including concentrations of fishing vessels or any other vessels.
 - iii. The manoeuvrability of the vessel with special reference to stopping distance and turning ability in the prevailing conditions.
 - iv. At night, the presence of background light such as from shore lights or from back scatter of her own lights.
 - v. The state of wind, sea and current, and the proximity of navigational hazards.
 - vi. The draught in relation to the available depth of water.
- b. Additionally, by vessels with operational radar:
 - i. The characteristics, efficiency and limitation of the radar equipment.
 - ii. Any constraints imposed by the radar range scale in use.
 - iii. The effect on radar detection of the sea state, weather and other sources of interference.
 - iv. The possibility that small vessels, ice and other floating objects may not be detected by radar at an adequate range.
 - v. The number, location and movement of vessels detected by radar.
 - vi. The more exact assessment of the visibility that may be possible when radar

is used to determine the range of vessels or other objects in the vicinity.

RULE 7: Risk of Collision

- a. Every vessel shall use all available means appropriate to the prevailing circumstances and conditions to determine if collision exists. If there is any doubt such risk shall be deemed to exist.
- b. Proper use shall be made of radar equipment if fitted and operational, including long range scanning to obtain early warning of risk of collision and radar plotting or equivalent systematic observation of detected objects.
- c. Assumptions shall not be made on the basis of scanty information especially scanty radar information.
- d. In determining whether risk of collision exists, the following considerations shall be among those taken into account:
 - i. Such risk shall be deemed to exist if the compass bearing of an approaching vessel does not appreciably change.
 - ii. Such risk may sometimes exist even when an appreciable bearing change is evident, particularly when approaching a very large vessel or a tow or when approaching a vessel at close range.

RULE 8: Action to avoid collision.

- a. Any action to avoid a collision shall be taken in accordance with the rules of this part and shall, if circumstances of the case admit, be **positive**, made **in ample time** and **with due regard to the observance of good seamanship**.
- b. Any alteration of course and/or speed to avoid collision shall, if the circumstances of the case admit, **be large enough to be readily apparent to another vessel observing visually or by radar**. A succession of small alterations of course/speed shall be avoided.
- c. If there is sufficient sea room, alterations of course alone may be the most effective action to avoid a close quarters situation provided that it is made in good time, is substantial and does not result in another close quarters situation.
- d. Action taken to avoid collision with another vessel shall be such as to result in passing at a safe distance. The effectiveness of the action shall be carefully checked until the other vessel is finally past and clear.
- e. If necessary to avoid collision or allow more time to assess the situation, a vessel may **slacken her speed** or take all way off **by stopping or reversing her means of propulsion**.
- f. Impeding another vessel:
 - i. A vessel, by any of these rules, is required not to impede the passage or safe passage of another vessel shall, when required by the circumstances of the case, take early action to allow sufficient sea room for the safe passage of the other vessel.
 - ii. A vessel required not to impede the passage or safe passage of another vessel is not relieved of this obligation if approaching the other vessel so as to involve risk of

collision and shall, when taking action, have full regard to the action which may be required by the rules of this part.

- iii. A vessel the passage of which is not to be impeded remains fully obliged to comply with the rules of this part when the two vessels are approaching one another so as to involve risk of collision.

RULE 9: Narrow Channels

- a. A vessel proceeding along the course of a narrow channel or fairway, shall keep as near to the outer limit of the channel or fairway which lies on her starboard side as is safe and practicable.
- b. A vessel of less than 20 metres in length or a sailing vessel shall not impede the passage of a vessel which can safely navigate only within a narrow channel or fairway.
- c. A vessel engaged in fishing shall not impede the passage of any other vessel navigating within a narrow channel or fairway.
- d. A vessel shall not cross a narrow channel or fairway if such crossing impedes the passage of a vessel which can safely navigate only within such channel or fairway. The latter vessel may use the sound signal prescribed in rule 34(d) if in doubt as to the intentions of the crossing vessel.
- e. Overtaking.
 - i. In a narrow channel or fairway when overtaking can take place only if the vessel to be overtaken has to take action to permit safe passing, the vessel intending to overtake shall indicate her intention by sounding the appropriate signal prescribed in rule 34(c)(i). The vessel to be overtaken shall, if in agreement, sound the appropriate signal prescribed in rule 34 (c)(ii) and take steps to permit safe passing. If in doubt she may sound the signals prescribed in rule 35(d).
 - ii. This rule does not relieve the overtaking vessel of her obligations under rule 13.
- f. A vessel nearing a bend or an area of a narrow channel or fairway where other vessels may be obscured by an intervening obstruction shall navigate with particular alertness and caution and shall sound the appropriate signal prescribed in rule 34(e).
- g. Any vessel shall, if the circumstances of the case admit, avoid anchoring in a narrow channel.

RULE 10: Traffic Separation Schemes

- a. This rule applies to traffic separation schemes adopted by the IMO and does not relieve any vessel of her obligation under any other rule.



Typical traffic separation scheme

- b. A vessel using a traffic separation scheme shall:
 - i. Proceed in the appropriate traffic lane in the general direction of traffic flow for that lane.
 - ii. So far as practicable keep clear of a traffic separation line or separation zone.
 - iii. Normally join or leave a traffic lane at the termination of the lane, but when joining or leaving from either side shall do so at as small an angle to the general direction of traffic flow as possible.
- c. A vessel shall, as far as practicable, avoid crossing traffic lanes, but if obliged to do so shall cross on a heading as nearly as practicable at right angles to the general direction of traffic flow.
- d. Inshore traffic zone.
 - i. A vessel shall not use an inshore traffic zone when she can safely use the appropriate traffic lane within the adjacent traffic separation scheme. However, vessels of less than 20 metres in length, sailing vessels and vessels engaged in fishing may use the inshore traffic zone.

- ii. Notwithstanding subparagraph (d)(i), a vessel may use an inshore traffic zone when en route to or from a port, offshore installation or structure, pilot station or any other place situated within the off shore traffic zone, or to avoid immediate danger.
- f. A vessel navigating in areas near the terminations of traffic separation schemes shall do so with particular caution.
- g. A vessel shall as far as practicable avoid anchoring in a traffic separation scheme or in areas near its terminations.
- h. A vessel not using a traffic separation scheme shall avoid it by as wide a margin as is practicable.
- i. A vessel engaged in fishing shall not impede the passage of any vessel following a traffic lane.
- j. A vessel of less than 20 metres in length or a sailing vessel shall not impede the safe passage of a power driven vessel following a traffic lane.
- k. A vessel restricted in her ability to manoeuvre when engaged in an operation for the maintenance of safety of navigation in a traffic separation scheme is exempt from complying with this rule to the extent necessary to carry out the operation.
- l. A vessel restricted in her ability to manoeuvre when engaged in an operation for the laying, servicing or picking up a submarine cable, within a traffic separation scheme, is exempted from complying with this rule to the extent necessary to carry out the operation.

SECTION 11 – CONDUCT OF VESSELS IN SIGHT OF ONE ANOTHER

RULE 11: Application

Rules in this section apply to all vessels in sight of one another.

RULE 12: Sailing vessels

- a. When two sailing vessels are approaching one another, so as to involve risk of collision. One of them shall keep out of the way of the other as follow:
 - i. when each has the wind on a different side, the vessel which has the wind on the port side shall keep out of the way of the other.
 - ii. when both have the wind on the same side, the vessel which is to windward shall keep out of the way of the vessel which is to leeward.
 - iii. if a vessel with the wind on the port side sees a vessel to windward and cannot determine with certainty whether the other vessel has the wind on the port or on the starboard side, she shall keep out of the way of the other.
- b. For the purposes of this rule the windward side shall be deemed to be the side opposite to that which the mainsail is carried or, in the case of a square-rigged vessel, the side opposite that on which the largest fore-and-aft sail is carried.

RULE 13: Overtaking

- a. Notwithstanding anything contained in the rules of Part B, Section I and II, any vessel overtaking any other shall keep out of the way of the vessel being overtaken.
- b. A vessel shall be deemed to be overtaking when coming up with another vessel from a direction more than $22\frac{1}{2}^{\circ}$ abaft her beam, that is, in such a position with reference to the vessel she is overtaking, that at night she would be able to see only the stern light of that vessel but neither of her side lights.
- c. When a vessel is in any doubt as to whether she is overtaking another, she shall assume this is the case and act accordingly.
- d. Any subsequent alteration of the bearing between the two vessels, shall not make the overtaking vessel a crossing vessel within the meaning of these rules or relieve her of the duty of keeping clear of the overtaken vessel until she finally past and clear.

RULE 14: Head –on Situation

- a. When two power driven vessels are meeting on reciprocal or nearly reciprocal courses so as to involve risk of collision each shall alter her course to starboard so that each shall pass on the port side of the other.
- b. Such a situation shall be deemed to exist when a vessel sees the other ahead or nearly ahead and by night she could see the masthead lights of the other in line or nearly in line and /or both side lights and by day she observes the corresponding aspect of the other vessel.
- c. When a vessel is in any doubt as to whether such a situation exists she shall assume that it does exist and act accordingly.

RULE 15: Crossing Situation

When two power driven vessels are crossing so as to involve risk of collision, the vessel which has the other on her own starboard side shall keep out of the way and shall, if the circumstances of the case admit, avoid crossing ahead of the other vessel.

RULE 16: action by Give-way Vessel

Every vessel which is directed to keep out of the way of another vessel shall, so far as possible, take early and substantial action to keep well clear.

RULE 17: Action by Stand-on Vessel

- a. Stand-on vessel.
 - i. Where one of two vessels is to keep out of the way of the other shall keep her course and speed.
 - ii. The latter vessel may however take action to avoid collision by her manoeuvre alone, as soon as it becomes apparent that the vessel required to keep out of the way is not taking appropriate action in compliance with these rules.
- b. When, from any cause, the vessel required to keep course and speed finds herself so close that collision cannot be avoided by the action of the give-way vessel alone, she shall take such action as will best aid to avoid collision.
- c. A power driven vessel which takes action in a crossing manoeuvre in accordance with subparagraph (a)(ii) of this rule to avoid collision with another power driven vessel shall, if the circumstances of the case admit, not alter course to port for a vessel on her own port side.
- d. This rule does not relieve the give-way vessel of her obligation to keep out of the way.

RULE 18: Responsibilities between Vessels

Except where rule 9, 10 and 13 otherwise require.

- a. A power driven vessel under way shall keep out of the way of:
 - i. a vessel not under command;
 - ii. a vessel restricted in her ability to manoeuvre;
 - iii. a vessel engaged in fishing;
 - iv. a sailing vessel.
- b. A sailing vessel underway shall keep out of the way of
 - i. a vessel not under command;
 - ii. a vessel restricted in her ability to manoeuvre;
 - iii. a vessel engaged in fishing.
- c. A vessel engaged in fishing shall keep out of the way of
 - i. a vessel not under command;
 - ii. a vessel restricted in her ability to manoeuvre.
- d. vessel constrained by her draught.
 - i. Any vessel other than a vessel not under command and a vessel restricted in her ability to manoeuvre shall, if the circumstances of the case admit, avoid impeding the safe passage of a vessel constrained by her draught, exhibiting the signals in rule 28.
 - ii. A vessel constrained by her draught shall navigate with particular caution having full regard to her special condition.
- c. A seaplane on the water shall in general, keep clear of all vessels and avoid impeding their navigation. In circumstances, however, where risk of collision exists, she shall comply with the rules of this part.
- d. WIG craft.
 - i. A WIG craft shall, when taking off, landing and in flight near the surface, keep well clear of all other vessels and avoid impeding their navigation.
 - ii. A WIG craft operating on the water surface shall comply with rules of this part as a power driven vessel.

SECTION III – CONDUCT OF VESSELS IN RESTRICTED VISIBILITY

RULE 19: Conduct of Vessels in Restricted Visibility

- a. This rule applies to vessels not in sight of one another when navigating in or near an area of restricted visibility.
- b. Every vessel shall proceed at a safe speed adapted to the prevailing circumstances and condition of restricted visibility. A power driven vessel shall have her engines ready for immediate manoeuvre.
- c. Every vessel shall have due regard to the prevailing circumstances and conditions of restricted visibility when complying with the rules of section 1 of this part.
- d. A vessel which detects by radar alone the presence of another vessel shall determine if a close quarters situation is developing and/or risk of collision exists. If so, she shall take avoiding action in ample time, provided that when such action consists of an alteration of course, so far as possible, the following shall be avoided:
 - i. An alteration of course to port for a vessel forward of the beam, either than for a vessel being overtaken.
 - ii. An alteration of course toward a vessel abeam or abaft the beam.
- e. Except where it has been determined that a risk of collision does not exist, every vessel which hears apparently forward of her beam the fog signal of another vessel, or which cannot avoid a close quarters situation with another vessel forward of her beam, shall reduce her speed to be the minimum at which she can be kept on her course. She shall if necessary take all her way off and in any event navigate with extreme caution until danger of collision is over.

PART C – LIGHTS AND SHAPES

RULE 20: Application

- a. Rules in this part shall be complied with in all weathers.
- b. The rules concerning lights shall be complied with from **sunset** to **sunrise**, and during such times no other lights shall be exhibited, except such lights as cannot be mistaken for the lights specified in these rules or do not impair their visibility or distinctive character, or interfere with the keeping of a proper look-out.
- c. The lights prescribed in these rules shall, if carried, also be exhibited from sunrise to sunset in restricted visibility and may be exhibited in all other circumstances when it is deemed necessary.
- d. The rules concerning shapes shall be complied with by day.
- e. The lights and shapes specified in these rules shall comply with the provisions of annexure 1 to these regulations.

NOTE: The contents of annexure 1 have not been included here as it is not considered necessary for learners in grades 11 to 12 to know details of its contents. Full details may be obtained in SAN-HO15 International Regulations for the Prevention of Collision at Sea (1972) published by the Hydrographer of the SA Navy.

RULE 21: Definitions

- a. “Masthead light” means a white light placed over the fore and aft centreline of the vessel showing an unbroken light over the arc of the horizon of 225° and so fixed as to show the light from right ahead to $22\frac{1}{2}^\circ$ abaft the beam on either side of the vessel.
- b. “Side lights” means a green light on the starboard side and a red light on the port side each showing an unbroken light over an arc of horizon of $112\frac{1}{2}^\circ$ and so fixed as to show the light from right ahead to $22\frac{1}{2}^\circ$ abaft the beam on its respective side. In a vessel of less than 20 metres in length the sidelights may be combined in one lantern and carried on the fore and aft centreline of the vessel.
- c. “Stern light”, means a white light placed as nearly as practicable at the stern showing an unbroken light over an arc of the horizon of 135° and so fixed as to show the light $67\frac{1}{2}^\circ$ from right aft on either side of the vessel.

- d. “Towing light”, means a yellow light having the same characteristics as the “stern light” defined in paragraph (c) of this rule.
- e. “All-round light”, means a light showing an unbroken light over an arc of the horizon of 360°.
- f. “Flashing light”, means a light flashing at regular intervals at a frequency of 120 flashes or more per minute.

RULE 22: Visibility of Lights

The lights prescribed in these rules shall have an intensity as specified in Section 8 of Annex I to these regulations (see the Note at the end of rule 20) so as to be visible at the following minimum ranges:

- a. In vessels of 50 metres or more in length:
 - a masthead light, 6 miles;
 - a sidelight, 3 miles;
 - a sternlight, 3 miles;
 - a towing light, 3 miles;
 - a white, red, green or yellow all-round light, 3 miles.
- b. In vessels of 12 metres or more in length but less than 50 metres in length:
 - a masthead light, 5 miles; except that where the length of the vessel is less than 20 metres, 3 miles;
 - a sidelight, 2 miles;
 - a sternlight, 2 miles;
 - a towing light, 2 miles;
 - a white, red, green or yellow all-round light, 2 miles.
- c. In vessels of less than 12 metres in length:
 - a masthead light, 2 miles;
 - a sidelight, 1 mile;
 - a towing light, 2 miles;
 - a white, red, green or yellow all-round light, 2 miles.
- d. In inconspicuous, partly submerged vessels or objects being towed:
 - a white all-round light, 3 miles.

RULE 23: Power-driven Vessels Underway

- a. A power-driven vessel underway shall exhibit:
 - i. a masthead light forward;
 - ii. A second masthead light abaft of and higher than the forward one; except that a vessel of less than 50 metres in length shall not be obliged to exhibit such light but may do so;
 - iii. sidelights; and
 - iv. a sternlight.
- b. An air-cushion vessel when operating in the non-displacement mode shall, in addition to the lights prescribed in paragraph (a) of this rule, exhibit an all-round flashing yellow light.
- c. A WIG craft only when taking off, landing and in flight near the surface shall, in addition to the lights prescribed in paragraph (a) of this rule, exhibit a high intensity all-round flashing red light.
- d. Small vessels.
 - i. A power-driven vessel of less than 12 metres in length may in lieu of the lights prescribed in paragraph (A) of this rule, exhibit an all-round white light and sidelights.
 - ii. A power-driven vessel of less than 7 metres in length whose maximum speed does not exceed 7 knots may in lieu of the lights prescribed in paragraph (a) of this rule exhibit an all-round white light and shall, if practicable, also exhibit sidelights.
 - iii. The masthead light or all-round white light on a power-driven vessel of less than 12 metres in length may be displaced from the fore and aft centreline of the vessel if centreline fitting is not practicable, provided that the sidelights are combined in one lantern which shall be carried on the fore and aft centreline of the vessel or located as nearly as practicable in the same fore and aft line as the masthead light or the all-round white light.

RULE 24: Towing and pushing

- a. A power-driven vessel when towing shall exhibit:
 - i. instead of the light prescribed in rule 23(a)(i) or (a)(ii), two masthead lights in a vertical line. When the length of the tow, measuring from the stern of the towing vessel to the after end of the tow exceeds 200 metres, three such lights in a vertical line;
 - II. sidelights;
 - III. a sternlight;
 - IV. a towing light in a vertical line above the sternlight; and
 - v. when the length of the tow exceeds 200 metres, a diamond shape where it can best be seen.

- b. When a pushing vessel and a vessel being pushed are rigidly connected in a composite unit they shall be regarded as a power driven vessel and exhibit the lights prescribed in rule 23.
- c. A power-driven vessel when pushing ahead or towing alongside, except in the case of the composite unit, shall exhibit:
 - i. instead of the lights prescribed in rule 23 (a)(i) or (a) (ii), two masthead lights in a vertical line;
 - ii. sidelights;
 - iii. a sternlight.
- d. A power-driven vessel to which paragraph (a) or (c) of this rule apply shall also comply with rule 23 (a) (ii).
- e. A vessel or object being towed, other than those mentioned in paragraph (g) of this rule, shall exhibit:
 - i. sidelights;
 - ii. sternlight;
 - iii. when the length of the tow exceeds 200 metres, a diamond shape where it can best be seen.
- f. Provided that any number of vessels being towed alongside or pushed in a group shall be lighted as one vessel:
 - i. a vessel being pushed ahead, not being part of a composite unit, shall exhibit at the forward end, sidelights;
 - ii. a vessel being towed alongside shall exhibit a sternlight and at the forward end, sidelights.
- g. An inconspicuous, partly submerged vessel or object, or combination of such vessels or objects being towed, shall exhibit:
 - i. if it is less than 25 metres in breadth, one all-round white light at or near the forward end and one at or near the after end except that dracones need not exhibit a light at or near the forward end;
 - ii. if it is 25 metres or more in breadth, two or more additional all-round white lights at or near the extremities of its breadth;
 - iii. if it exceeds 100 metres in length, additional all-round white lights between the lights prescribed in subparagraphs (i) and (ii) so that the distance between the lights shall not exceed 100 metres;
 - iv. a diamond shape at or near the aftermost extremity of the last vessel or object being towed and if the length of the tow exceeds 200 metres an additional diamond shape where it can best be seen and located as far forward as is practicable.



One type of dracone



A second type of dracone

- h. Where from any sufficient cause it is impracticable for a vessel or object being towed to exhibit the lights or shapes prescribed in paragraph (e) or (g) of this rule, all possible measures shall be taken to light the vessel or object being towed or at least indicate the presence of such vessel or object.
- i. Where from any sufficient cause it is impracticable for a vessel not normally engaged in towing operations to display the lights prescribed in paragraph (a) or (c) of this rule, such vessel shall not be required to exhibit those lights when engaged in towing another vessel in distress or otherwise in need of assistance. All possible measures shall be taken to indicate the nature of the relationship between the towing vessel and the vessel being towed as authorised by rule 36, in particular by illuminating the towline.

RULE 25: A Sailing Vessels Underway and Vessels Under Oars

- a. A sailing vessel underway shall exhibit:
 - i. sidelights;
 - ii. a sternlight.
- b. In a sailing vessel of less than 20 metres in length the lights prescribed in paragraph (a) of this rule may be combined in one lantern carried at or near the top of the mast where it best can be seen.
- c. A sailing vessel underway may, in addition to the lights prescribed in paragraph of this rule, exhibit at or near the top of the mast, where they can best be seen, two all-round white lights in a vertical line, the upper being red and the lower being green, but these lights shall not be exhibited in conjunction with the combined lantern permitted by paragraph (b) of this rule.
- d. Smaller vessels.
 - i. A sailing vessel of less than 7 metres in length shall, if practicable, exhibit the lights prescribed in paragraph (a) or (b) of this rule, but if she does not, she shall have ready at hand an electric torch or lighted lantern showing a white light which shall be exhibited in sufficient time to prevent collision.
 - ii. A vessel under oars may exhibit the lights prescribed in this rule for sailing vessels, but if she does not, she shall have ready at hand an electric torch or lighted lantern showing a white light which shall be exhibited in sufficient time to prevent collision.
- e. A vessel proceeding under sail when also being propelled by machinery shall exhibit forward where it best can be seen a conical shape, apex downwards.

RULE 26: Fishing Vessels

- a. A vessel engaged in fishing, whether underway or at anchor, shall exhibit only the lights and shapes prescribed by this rule.
- b. A vessel when engaged in trawling, by which is meant the dragging through the water of a dredge net or other apparatus used as a fishing appliance, shall exhibit:
 - i. two all-round lights in a vertical line, the upper being green and the lower white, or a shape consisting of two cones with their apexes together in a vertical line one above the other; a vessel of less than 20 metres in length may instead of this shape exhibit a basket.
 - ii. a masthead light abaft of and higher than the all-round green light; a vessel of less than 50 metres in length shall not be obliged to exhibit such a light but may do so;

- iii. when making way through the water, in addition to the lights prescribed in this paragraph, sidelights and a sternlight.
- d. A vessel not engaged in fishing shall not exhibit the lights or shapes prescribed in this rule, but only those prescribed for a vessel of her length.

RULE 27: Vessels not Under Command or Restricted in their Ability to Manoeuvre

- a. A vessel not under command shall exhibit:
 - i. two all-round red lights in a vertical line where they best can be seen;
 - ii. two balls or similar shapes in a vertical line where they best can be seen;
 - iii. when making way through the water, in addition to the lights prescribed in this paragraph, sidelights and a sternlight.
- b. A vessel restricted in her ability to manoeuvre, except a vessel engaged in mine clearance operations, shall exhibit:
 - i. three all-round lights in a vertical line where they best can be seen. The highest and lowest of these lights shall be red and the middle light shall be white;
 - ii. three shapes in a vertical line where they best can be seen. The highest and lowest of these shapes shall be balls and the middle one a diamond;
 - iii. when making way through the water, a masthead light or lights, sidelights and a sternlight in addition to the lights prescribed in subparagraph (i);
 - iv. when at anchor, in addition to the light, lights or shape prescribed in rule 30.
- c. A power-driven vessel engaged in a towing operation such as severely restricts the towing vessel and her tow in their ability to deviate from their course shall, in addition to the lights and shapes prescribed in rule 24(a), exhibit the lights or shapes prescribed in subparagraphs (b)(i) and (ii) of this rule.
- d. A vessel engaged in dredging or underwater operations, when restricted in her ability to manoeuvre, shall exhibit the lights and shapes prescribed in subparagraphs (i), (ii) and (iii) of this rule and shall in addition, when an obstruction exists, exhibit:
 - i. two all-round red lights or two balls in a vertical line to indicate the side on which the obstruction exists;
 - ii. two all-round green lights or two diamonds in a vertical line to indicate the side on which another vessel may pass;
 - iii. when at anchor, the lights or shapes prescribed in this paragraph instead of the lights or shapes prescribed in rule 30.
- e. Whenever the size of a vessel engaged in diving operations makes impracticable to exhibit all lights and shapes prescribed in paragraph (d) of this rule, the following shall be exhibited:

- i. three all-round lights in a vertical line where they best can be seen. The highest and lowest of these lights shall be red and the middle light shall be white;
 - ii. a rigid replica of the Code flag "A" not less than 1 metre in height. Measures shall be taken to ensure its all-round visibility.
- f. A vessel engaged in mine clearance operations shall in addition to the lights prescribed for a power-driven vessel in rule 23 or to the lights or shape prescribed for a vessel at anchor in rule 30 as appropriate, exhibit three all-round green lights or three balls. One of these lights or shapes shall be exhibited near the foremast head and one at each end of the fore yard. These lights or shapes indicate that it is dangerous for another vessel to approach within 1000 metres of a mine clearance vessel.
- g. Vessels of less than 12 metres in length, except those engaged in diving operations, shall not be required to exhibit the lights and shapes prescribed in this rule.
- h. The signals prescribed in this rule are not signals of vessels in distress and requiring assistance. Such signals are contained in annex IV to these regulations.

RULE 28: Vessels Constrained by their Draught

A vessel constrained by her draught may, in addition to the lights prescribed for power-driven vessels in rule 23, exhibit where they best can be seen three all-round red lights in a vertical line, or a cylinder.

RULE 29: Pilot Vessels

- a. A vessel engaged on pilotage duty shall exhibit the following:
 - i. at or near the masthead, two all-round lights in a vertical line, the upper being white and the lower red;
 - ii. when underway, in addition, sidelights and a sternlight;
 - iii. when at anchor, in addition to the lights prescribed in subparagraph (i), the light, lights or shape prescribed in rule 30 for vessels at anchor.
- b. A pilot vessel when not engaged on pilotage duty shall exhibit the lights or shapes prescribed for a similar vessel of her length.

RULE 30: Anchored Vessels and Vessels Aground

- a. A vessel at anchor shall exhibit where it can best be seen:
 - i. in the fore part, an all-round white light or one ball;
 - ii. at or near the stern and at a lower level than the light prescribed in subparagraph (i), an all-round white light.

- b. A vessel less than 50 metres in length may exhibit an all-round white light where it can best be seen instead of the lights prescribed in paragraph (a) of this rule.
- c. A vessel at anchor may, and a vessel of 100 metres and more in length shall' also use the available working or equivalent lights to illuminate her decks.
- d. A vessel aground shall exhibit the lights prescribed in paragraph (a) and (b) of this rule and in addition, where it best can be seen:
 - i. two all-round red lights where it best can be seen;
 - ii. three balls in a vertical line.
- e. A vessel of less than 7 metres in length, when at anchor, not in or near a narrow channel, fairway or where other vessels normally navigate, shall not be required to exhibit the lights or shapes prescribed in paragraphs (a) and (b) of this rule.
- f. A vessel of less than 12 metres in length, when aground, shall not be required to exhibit the lights or shapes prescribed in subparagraphs (d)(i) and (ii) of this rule.

RULE 31: Seaplanes

Where it is impracticable for a seaplane or WIG craft to exhibit lights or shapes of the characteristics or in positions prescribed in the rules of this part, she shall exhibit lights and shapes as closely similar in characteristics and position as is possible.

PART D – SOUND AND LIGHT SIGNALS

Rule 32: Definitions

- a. The word “whistle” means any sound signalling appliance capable of producing the prescribed blasts and which complies with the specifications in annex III to these regulations.

NOTE. The annex is not included in these notes. The grade 11 and 12 learners are not required to know these specifications.

- b. The term “short blast” means a blast of about one seconds duration.
- c. The term (prolonged blast” means a blast of four to six seconds duration.

RULE 33: Equipment for Sound Signals

- a. A vessel of 12 metres or more in length shall be provided with a whistle, a vessel of 20 metres or more in length shall be provided with a bell in addition to a whistle and a vessel of 100 metres or more in length shall, in addition, be provided with a gong, the tone and sound of which cannot be confused with that of the bell. The whistle, bell and gong shall comply with the specifications in annex III to these regulations. The bell or gong or both may be replaced by other equipment having the same respective sound characteristics, provided that manual sounding of the required signals shall always be possible.
- b. A vessel of less than 12 metres in length shall not be obliged to carry the sound signalling appliances prescribed in paragraph (a) of this rule but If she does not, she shall be provided with some other means of making an efficient signal.

RULE 34: Manoeuvring and Warning Signals

- a. When vessels are in sight of one another, a power-driven vessel underway, when manoeuvring as authorised or required by these rules, shall indicate that manoeuvre by the following signals on her whistle:
 - i. one short blast to mean “I am altering my course to starboard”.
 - ii. two short blasts to mean “I am altering my course to port”
 - iii. three short blasts to mean “I am operating astern propulsion”
- b. Any vessel may supplement the whistle signals prescribed in paragraph ((a) of this rule by light signals, repeated as appropriate, whilst the manoeuvre is being carried out:
 - i. these light signals shall have the following significance:
 - (1) one flash to men “I am altering my course to starboard”.
 - (2) two flashes to mean “I am altering my course to port”
 - (3) three flashes to mean “I am operating astern propulsion”

- ii. the duration of each flash shall be about one second. The interval between flashes, shall be about one second, and the interval between successive signals shall not be less than ten seconds.
 - iii. the light used for this signal shall, if fitted, be an all-round white light, visible at a maximum range of 5 miles and shall comply with the provisions of annex I to these regulations.
- c. When in sight of one another in a narrow channel or fairway:
 - i. a vessel intending to overtake another shall in compliance with rule 9(e)(i) indicate her intention by the following signals on her whistle:
 - (1) two prolonged blasts followed by one short blast to mean "I intend to overtake you on your starboard side";
 - (2) two prolonged blasts followed by two short blasts to mean "I intend to overtake you on your port side".
 - ii. the vessel about to be overtaken when acting in accordance with 9(e)(i) shall indicate her agreement by the following signal on her whistle:
 - (1) one prolonged, one short, one prolonged and one short blast, in that order.
- d. When vessels in sight of one another are approaching each other and from any cause either vessel fails to understand the intentions or actions of the other, or is in doubt whether sufficient action is being taken by the other to avoid collision, the vessel in doubt shall immediately indicate such doubt by giving at least five short and rapid blasts on the whistle. Such signal may be supplemented by a light signal of at least five short and rapid flashes.
- e. A vessel nearing a bend or an area of a channel or fairway where other vessels may be obscured by an intervening obstruction shall sound one prolonged blast. Such signal shall be answered with a prolonged blast by any approaching vessel that may be within hearing distance around the bend or behind the intervening obstruction.
- f. If whistles are fitted on a vessel at a distance apart of more than 100 metres, one whistle only shall be used for giving manoeuvring and warning signals.

RULE 35: Sound signals in restricted visibility

In or near an area of restricted visibility, whether by day or night, the signals prescribed in this rule shall be used as follows:

- a. A power driven vessel making way through the water shall sound at intervals of not more than 2 minutes one prolonged blast.

- b. A power driven vessel underway but stopped and making no way through the water shall sound at intervals of no more than 2 minutes two prolonged blasts in succession with an interval of about 2 seconds between them.
- c. A vessel not under command, a vessel restricted in her ability to manoeuvre, a vessel constrained by her draught, a sailing vessel, a vessel engaged in fishing and a vessel engaged in towing or pushing another vessel shall, instead of the signals prescribed in paragraph (a) or (b) of this rule, sound at intervals of not more than two minutes three blasts in succession, namely one prolonged followed by two short blasts.
- d. A vessel engaged in fishing, when at anchor, and a vessel restricted in her ability to manoeuvre when carrying out her work at anchor, shall instead of the signals prescribed in paragraph (g) of this rule sound the signal prescribed in paragraph (c) of this rule.
- e. A vessel towed or if more than one vessel is being towed the last vessel of the tow, if manned, shall at intervals of not more than two minutes, sound four blasts in succession, namely one prolonged followed by three short blasts. When practicable, this signal shall be made immediately after the signal made by the towing vessel
- f. When a pushing vessel and a vessel being pushed ahead are rigidly connected in a composite unit they shall be regarded as a power driven vessel and shall give the signals prescribed in paragraphs (a) or (b) of this rule.
- g. A vessel at anchor shall at intervals of not more than one minute ring the bell rapidly for five seconds. In a vessel 100 metres or more in length, the bell shall be sounded in the fore part of the vessel and immediately after the ringing of the bell the gong shall be sounded rapidly for about five seconds in the after part of the vessel. A vessel at anchor may in addition sound three blasts in succession, namely one short, one long and one short to give warning of her position and of the possibility of collision to an approaching vessel.
- h. A vessel aground shall give the bell signal and if required the gong signal prescribed in paragraph (g) of this rule and shall, in addition, give three separate and distinct strokes on the bell immediately before and after the rapid ringing of the bell. A vessel aground may in addition sound an appropriate whistle signal
- i. A vessel of 12 metres or more but less than 20 metres in length shall not be obliged to give the bell signals prescribed in paragraphs (g) and (h) of this rule. However, if she does not, she shall make some other efficient sound signal at intervals of not more than two minutes.
- j. A vessel of less than 12 metres in length shall not be obliged to give the above mentioned signals but, if she does not, shall make some other efficient sound signal at intervals of not more than 2 minutes.

- k. A pilot vessel when engaged on pilotage duty may in addition to the signals prescribed in paragraph (a), (b) or (g) of this rule sound an identity signal consisting of four short blasts.

RULE 36: Signals to attract attention

If necessary to attract the attention of another vessel, any vessel may make light or sound signals that cannot be mistaken for any signal authorised elsewhere in these rules, or may direct the beam of her searchlight in the direction of the danger, in such a way as not to embarrass any vessel. Any light to attract the attention of another vessel shall be such that it cannot be mistaken for any aid to navigation. For the purpose of this rule the use of high intensity intermittent or revolving lights, such as strobe lights, shall be avoided. .

RULE 37: Distress Signals

When a vessel is in distress and requires assistance she shall use or exhibit the signals described in Annex IV to these regulations.

ANNEX IV DISTRESS SIGNALS

1. **Need of Assistance**

The following signals, used or exhibited either together or separately, indicate distress and need of assistance:

- a. a gun or other explosive signal fired at intervals of about a minute;
- b. a continuous sounding with any fog-signalling apparatus;
- c. rockets or shells, throwing red stars fired one at a time at short intervals;
- d. a signal made by morse telegraphy or by any other signalling method consisting of the group ...---... (SOS) in the morse code;
- e. a signal sent by radiotelephony consisting of the spoken word "Mayday";
- f. the International Code Signal of distress indicated by N.C;
- g. a signal consisting of a square flag having above or below it a ball or something resembling a ball;
- h. flames on the vessel (as from a burning tar barrel, etc;
- i. a rocket parachute flare or a hand held flare showing a red light;
- j. a smoke signal giving off orange coloured smoke;
- k. slowly and repeatedly raising your arms;
- l. the radiotelegraph alarm signal;
- m. the radiotelephony alarm signal.
- n. signals transmitted by emergency position indicating radio beacons (EPIRB's)
- o. approved signals transmitted by radio communication systems.

2. **Use of signals.**

The use or exhibition of the foregoing signals except for the purpose of indicating distress or need of assistance and the use of other signals which maybe confused with any of the above signals is prohibited.

3. **Other Signals**

Attention is drawn to the International code of Signals, the Merchant Ship Search and Rescue Manual and the following signals:

- a. a piece of orange coloured canvas with either a black square or circle or other appropriate signal (for identification)
- b. dye marker.