

[LEGAL NOTICE NO. 91]

MARITIME TRANSPORT DECREE 2013
(DECREE NO. 20 OF 2013)

Maritime (Collision Prevention) Regulations 2014

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MARITIME TRANSPORT DECREE 2013
(DECREE NO. 20 OF 2013)

MARITIME (COLLISION PREVENTION) REGULATIONS 2014

In exercise of the powers conferred upon me by section 240(1)(dd) of the Maritime Transport Decree 2013, I hereby make these Regulations—

PART 1—PRELIMINARY

Short title and commencement

1. These Regulations may be cited as the Maritime (Collision Prevention) Regulations 2014 and shall come into force on a date appointed by the Minister by notice in the *Gazette*.

Interpretation

2.—(1) In these Regulations, unless the context otherwise requires—

“aircraft” has the same meaning as in the Civil Aviation Act (Cap. 174);

“crew” means the persons employed or engaged in any capacity on board a ship except a master, a pilot or a person temporarily employed on the ship while it is in port;

“distress” means that a ship or person is in grave and imminent danger, and requires immediate assistance;

“dracone” means a large flexible cylindrical container, towed by a ship, used for transporting liquids;

“foreign ship” means any ship that is not a Fiji ship;

“high speed ship” means a ship in respect of which a High Speed Craft Safety Certificate has been issued in compliance with the International Code of Safety for High Speed Craft adopted by Resolution MSC 36(63) of the International Maritime Organization’s Maritime Safety Committee dated June 1994, as amended by MSC 119(74), MSC 221(82) and MSC 259(84) from time to time;

“mile” means a standard nautical mile of 1852 metres;

“near the surface of the water”, in relation to a WIG craft, means in close proximity to the water such that the craft might come into contact with, or impede the navigation, of other ships;

“power-driven ship” means any ship propelled by machinery;

“restricted visibility” means any condition in which visibility is restricted by fog, mist, heavy rainstorms, sandstorms or other similar causes;

“sailing ship” means any ship under sail, as long as propelling, if fitted, is not being used;

“seaplane” includes a flying boat and any other aircraft designed to manoeuvre on the water;

“ship” means every description of boat or craft used in navigation, whether or not it has any means of propulsion and includes—

- (a) a barge, lighter or other like vessel;
- (b) a hovercraft or other thing deriving full or partial support in the atmosphere from the reaction of air against the surface of the water over which it operates; or
- (c) a submarine or other submersible;

“ship constrained by its draught” means a power-driven ship severely restricted in ability to deviate from the course it is following due to its draught in relation to the available depth and width of water;

“ship engaged in fishing” means any ship fishing with nets, lines, trawls or other fishing apparatus which restrict manoeuvrability but does not include a ship fishing with trolling lines or other fishing apparatus which do not restrict the ship’s manoeuvrability;

“ship not under command” means a ship which through some exceptional circumstances is unable to manoeuvre as required by these Regulations and is therefore unable to keep out of the way of another ship;

“ship restricted in its ability to manoeuvre” means a ship which from the nature of its work is restricted in its ability to manoeuvre as required by these Regulations and is therefore unable to keep out of the way of another ship, and includes but is not limited to—

- (a) a ship engaged in laying, servicing or picking up a navigation mark, submarine cable or pipeline;

- (b) a ship engaged in dredging, surveying or underwater operations;
- (c) a ship engaged in replenishment or transferring persons, provisions or cargo while underway;
- (d) a ship engaged in the launching and recovery of aircraft;
- (e) a ship engaged in mine clearance operations; and
- (f) a ship engaged in a towing operation that severely restricts the towing ship and its tow in their ability to deviate from their course;

“traffic separation scheme” means a scheme published by the International Maritime Organization that separates traffic navigating in one direction in an area from traffic navigating in the opposite or approximately opposite direction in that area;

“trawling” means dragging through the water of a dredge net or other apparatus used as a fishing appliance;

underway” means that a ship is not at anchor, or made fast to the shore or aground; and

“warship”—

- (a) means a ship belonging to the defense forces of a State and bearing the external marks distinguishing the nationality of a ship of that State, being a ship—
 - (i) under the command of an officer duly commissioned by the Government of that State whose name appears in the appropriate service list or its equivalent; and
 - (ii) crewed by crew subject to regular armed forces discipline; and
- (b) includes any ship requisitioned by the Republic of Fiji Military Forces; but
- (c) does not include any ship operated by the Republic of Fiji Military Forces that operates, for the time being, for a commercial purpose; and

“Wing-in-ground craft” or “WIG craft” means a multimodal craft that, in its main operational mode, flies—

- (a) in close proximity to, and without contact with, the water surface;
- (b) by using surface-effect action above the water; and
- (c) supported in the air primarily by an aerodynamic lift generated on the wing or wings or the hull of the ship or their parts.

(2) For the purposes of these Regulations, ships are insight of one another only if one can be observed visually from the other.

Purpose

3. These Regulations—

- (a) give effect to the Convention on the International Regulations for Preventing Collisions at Sea 1972, to which Fiji is party;
- (b) provide the steering and sailing rules (rules of the road) for ships, as well as standards for the installation, performance and use of lights for collision avoidance and the sound and light signals used for communication of safety information; and
- (c) shall apply to—
 - (i) Fiji ships, including pleasure craft, wherever they are;
 - (ii) foreign ships, including pleasure craft, in Fiji waters;
 - (iii) ships of the defence force and foreign defence forces in Fiji waters;
 - (iv) seaplanes when manoeuvring on the surface of Fiji waters; and
 - (v) craft in inland waters, such as lakes, rivers and dams.

Application

4.—(1) Subject to sub-regulation (2), these Regulations shall apply to—

- (a) Fiji ships;
- (b) all ships in Fiji waters; and
- (c) all warships while in Fiji waters.

(2) A ship—

- (a) the keel of which was laid or which was at a corresponding stage of construction before the 15th July 1977 (being the date of entry into force of the Collision Regulations Order 1976); and
- (b) which complies with the requirements of the International Regulations for Preventing Collisions at Sea, 1960,—

shall be exempted from the following requirements—

- (i) paragraphs 2.1(a) and 2.1(b), 2.2-2.5, 2.8, 2.9 and 2.11, 3.1 and 3.3, 4.1 and 4.2 of Schedule 1 in relation to the repositioning of lights as a result of conversion from imperial to metric units and rounding off of measurement figures;
- (ii) paragraph 3.1 of Schedule 1 in relation to the repositioning of masthead lights on ships less than 150 metres in length; and
- (iii) to reposition all-round lights resulting from the prescription of paragraph 9.3 of Schedule 1.

(3) Nothing in these Regulations shall—

- (a) interfere with the operation of any special rule made by the Government or in the case of a foreign ship, the Government of its flag State relating to additional station or signal lights, shapes or whistle signals for warships and ships proceeding under convoy, or with respect to additional station or signal lights for fishing ships engaged in fishing as a fleet; and
- (b) apply to a ship participating in a race or training or coaching in relation to other ships participating in such an activity, if the participants have agreed to comply with the International Sailing Federation Rules, prescribed by the International Sailing Federation.

(4) Additional station or signal lights, shapes, or whistle signals must, as far as possible, be such that they cannot be mistaken for any light, shape or signal authorised elsewhere in these Regulations.

PART 2—STEERING AND SAILING

Division 1—Conduct of Ships in any Condition of Visibility

Application

5. This Division shall apply in any condition of visibility.

Look-out

6. A ship must at all times maintain a proper look-out by sight, and all available means appropriate in the prevailing circumstances and conditions, so as to make a full appraisal of the situation and the risk of collision.

Safe speed

7.—(1) A ship must at all times proceed at a safe speed so that proper and effective action to avoid a collision can be taken and the ship be stopped within a distance appropriate to the prevailing circumstances and conditions.

(2) In determining a safe speed, the following factors must be taken into account—

- (a) for all ships—
 - (i) the state of visibility;
 - (ii) the traffic density, including concentrations of fishing ships or any other ship;
 - (iii) the manoeuvrability of the ship, 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 the back scatter of the ship's own lights; and
 - (v) the state of wind, sea and current, and the proximity of navigational hazards; and

- (b) for ships with operational radar—
- (i) the characteristics, efficiency and limitations 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 ships, ice and other floating objects may not be detected by radar at an adequate range;
 - (v) the number, location and movement of ships detected by radar; and
 - (vi) the more exact assessment of the visibility that may be possible when radar is used to determine the range of ships or other objects in the vicinity.

Risk of collision

8.—(1) A ship must use all available means appropriate to the prevailing circumstances and conditions to determine if a risk of collision exists.

(2) A risk of collision shall be deemed to exist in the event there is doubt of any such risk.

(3) Proper use must be made of radar equipment, if fitted and operational, including long-range scanning to obtain early warning of the risk of any collision, and radar plotting or equivalent systematic observation of detected objects.

(4) In determining if a risk of collision exists, the following must be taken into consideration—

- (a) approaching ship does not appreciably change; and
- (b) such risk may sometimes exist even when an appreciable bearing change is evident, particularly when approaching a very large ship or a tow or when approaching a ship at close range.

Action to avoid collision

9.—(1) Any action to avoid collision must be taken in accordance with the requirements of this Division and—

- (a) if the circumstances allow, be—
 - (i) positive;
 - (ii) made in ample time; and
 - (iii) with due regard to the observance of good seafaring practice; and
- (b) be such as to result in passing at a safe distance.

(2) Any alteration of course or speed, or both, to avoid collision must, if the circumstances of the case allow, be large enough to be readily apparent to another ship observing visually or by radar.

(3) A succession of small alterations of course or speed, or both must be avoided.

(4) If there is sufficient sea-room, alteration of course alone may be the most effective action to avoid a close-quarters situation provided that it—

(a) is made in good time;

(b) is substantial; and

(c) does not result in another close-quarters situation.

(5) The effectiveness of any action taken must be carefully checked until the other ship has finally passed and clear.

(6) If necessary, to avoid collision or to allow more time to assess the situation, a ship must reduce its speed or take all way off by stopping or reversing its means of propulsion.

(7) A ship that, is obliged under these Regulations not to impede the passage or safe passage of another ship must, when required, take early action to allow sufficient sea-room for the safe passage of the other ship.

(8) A ship that is required not to impede the passage or safe passage of another ship is not relieved of this obligation if approaching the other ship so as to involve a risk of collision.

(9) Pursuant to sub-regulation (8), the person in control of a ship must, when taking action, have full regard to the action which may be required of the ship he or she is in control of and the other ship, by this Division.

(10) A ship the passage of which is not to be impeded shall remain fully obliged to comply with this regulation when the two ships are approaching one another so as to involve risk of collision.

Narrow channels

10.—(1) A ship proceeding along the course of a narrow channel or fairway must keep as near to the outer limit of the channel or fairway which lies on its starboard side as is safe and practicable.

(2) A ship of less than 20 metres in length or a sailing ship must not impede the passage of a ship which can safely navigate only within a narrow channel or fairway.

(3) A ship engaged in fishing must not impede the passage of any other ship navigating within a narrow channel or fairway.

(4) A ship must not cross a narrow channel or fairway if such crossing impedes the passage of a ship which can safely navigate only within that channel or fairway.

(5) Pursuant to sub-regulation (2), if the ships are in sight of each other, the ship which can safely navigate only within a narrow channel or fairway, may use a sound signal being at least five short and rapid blasts on the whistle as prescribed in regulation 34(6) if in doubt as to the intention of the crossing ship, which may be supplemented by a light signal of at least five short and rapid flashes.

(6) If ships are in sight of each other in a narrow channel or fairway, overtaking can take place only if the ship to be overtaken has to take action to permit safe passing.

(7) Pursuant to sub-regulation (6), the following shall apply—

- (a) the ship intending to overtake must signal its intention by sounding one of the following sound signals prescribed in regulation 34(5)(a);
 - (i) two prolonged blasts followed by one short blast, to mean “I intend to overtake you on your starboard side”; or
 - (ii) two prolonged blasts followed by two short blasts, to mean “I intend to overtake you on your port side.”
- (b) the ship to be overtaken must, if in agreement, sound the following signal as prescribed in regulation 34(5)(b) and take steps to permit safe passing - four blasts consisting of one prolonged, one short, one prolonged, one short; and
- (c) if the ship to be overtaken has any doubt, it may sound at least five short and rapid blasts on the whistle as prescribed in regulation 34(6) which may be supplemented by a light signal of at least five short and rapid flashes.

(8) This regulation does not relieve the overtaking ship of its obligation under regulation 16 for overtaking ships.

(9) A ship nearing a bend or an area of a narrow channel or fairway where other ships may be obscured by an intervening obstruction must navigate with particular alertness and caution, and must sound one prolonged blast on its whistle as prescribed in regulation 34(7) which must be answered with a prolonged blast by any approaching ship that may be within hearing around the bend or behind the intervening obstruction.

(10) Any ship must, if the circumstances of the case allow, avoid anchoring in a narrow channel.

Traffic separation schemes

11.—(1) This regulation applies to traffic separation schemes adopted by the International Maritime Organization but does not relieve any ship of its obligations under any other regulation in these Regulations.

(2) A ship using a traffic separation scheme must—

- (a) proceed in the appropriate traffic lane in the general direction of traffic flow for that lane;
- (b) so far as practicable keep clear of a traffic separation line or separation zone;
- (c) normally join or leave a traffic lane at the termination of the lane; and
- (d) when joining or leaving a traffic lane from either side, do so at the smallest practicable angle to the general direction of traffic.

(3) A ship must avoid crossing traffic lanes, however if circumstances require a ship to cross traffic lanes, it must cross on a heading as close as practicable to right angles to the general direction of traffic flow.

(4) Subject to sub-regulation (5), a ship must not use an inshore traffic zone when it can safely use the appropriate traffic lane within the adjacent traffic separation scheme.

(5) A ship may use the inshore traffic zone if it is—

- (a) less than 20 metres in length;
- (b) a sailing ship;
- (c) engaged in fishing;
- (d) en route to or from a port, offshore installation or structure, pilot station or any other place situated within the inshore traffic zone; or
- (e) avoiding immediate danger.

(6) Subject to sub-regulation (7), a ship that is not crossing, joining or leaving a lane must not normally enter a separation zone or cross a separation line.

(7) A ship may cross a separation line or enter a separation zone—

- (a) in cases of emergency to avoid immediate danger; or
- (b) to engage in fishing within the separation zone.

(8) A ship navigating in areas near the terminations of traffic separation schemes must do so with particular caution.

(9) A ship must as far as practicable avoid anchoring in a traffic separation scheme or in areas near its terminations.

(10) A ship not using a traffic separation scheme must avoid it by as wide a margin as practicable.

(11) A ship engaged in fishing must not impede the passage of any ship following a traffic lane.

(12) A ship of less than 20 metres in length or a sailing ship must not impede the safe passage of a power-driven ship following a traffic lane.

(13) The following ships are exempted from carrying out the requirements of this regulation to the extent necessary to carry out their operations—

- (a) a ship restricted in its ability to manoeuvre, when engaged in an operation for the maintenance of navigational safety in a traffic separation scheme; and
- (b) a ship restricted in its ability to manoeuvre, when engaged in an operation for the laying, servicing, or picking up of a submarine cable within a traffic separation scheme.

Division 2—Conduct of Ships in Sight of One Another

Application

12. This Division shall apply to ships in sight of each other.

Sailing ships

13.—(1) For the purpose of section, the windward side is defined as—

- (a) in the case of a square-rigged ship, the side opposite to that on which the largest fore and aft sail is carried; or
- (b) in any other case, the side opposite to that on which the mainsail is carried.

(2) When two sailing ships are approaching one another so as to involve risk of collision, one must keep out of the way of the other as follows—

- (a) when each has the wind on a different side, the ship which has the wind on the port side must keep out of the way of the other;
- (b) when both have the wind on the same side, the ship which is to windward must keep out of the way of the ship which is to leeward;
- (c) if a ship with the wind on the port side sees a ship to windward and cannot determine with certainty whether the other ship has the wind on the port or starboard side, it must keep out of the way of the other.

(3) Sailing ships when operating propelling machinery must obey the rules for a power-driven ship.

Overtaking

14.—(1) Notwithstanding regulations 12 and 13, any ship overtaking any other ship must keep out of the way of the ship being overtaken.

(2) A ship shall be considered to be overtaking when coming up to another ship from a direction of more than 22.5 degrees abaft its beam, that is, in such a position where at night the stern light, but neither of the sidelights of the ship being overtaken, would be visible.

(3) When a ship is in any doubt as to whether it is overtaking another, it must assume that it is and act accordingly.

(4) Any subsequent alteration of bearing between the two ships shall not—

- (a) make the overtaking ship a crossing ship within the meaning of these Regulations; and
- (b) relieve the overtaking ship of its duty to keep clear of the overtaken ship until it is finally past and clear.

Head-on situation

15.—(1) When two power-driven ships are meeting on reciprocal or nearly reciprocal courses so as to involve risk of collision, each must alter its course to starboard so that each passes on the port side of the other.

(2) Such a situation shall be considered to exist when a ship sees the other ahead or nearly ahead and—

- (a) by night, the masthead lights of the other ship are in line or nearly in line and/or both sidelights are visible; or
- (b) by day, the corresponding aspect of the other ship is observed.

(3) When a ship is in any doubt as to whether such a situation exists, it must assume that it does and act accordingly.

Crossing situation

16.—(1) When two power-driven ships are crossing so as to involve risk of collision, the ship which has the other on its starboard side must keep out of the way.

(2) The ship required to keep out of the way must, if the circumstances of the case allow, avoid crossing ahead of the other ship.

Action by stand-on ship

17.—(1) If one of two ships is to keep out of the way, the other must keep its course and speed.

(2) As soon as it becomes apparent to the stand-on ship that the ship required to give way is not taking appropriate action in compliance with these Regulations—

- (a) it may take action to avoid collision by its manoeuvre alone; and
- (b) if it is a power-driven ship in a crossing situation, if the circumstances of the case allow, it must not alter course to port for a ship on its own port side.

(3) When, from any cause, the stand-on ship finds itself so close that collision cannot be avoided by the action of the give-way ship alone, it must take whatever action will best avoid collision.

(4) This regulation does not relieve the give-way ship of its obligation to keep out of the way.

Responsibilities between ships

18.—(1) Except where regulations 12, 13 and 14 require otherwise, the following shall apply—

- (a) a power-driven ship underway must keep out of the way of—
 - (i) a ship not under command;
 - (ii) a ship restricted in its ability to manoeuvre;
 - (iii) a ship engaged in fishing; and
 - (iv) a sailing ship or a ship under oars;
- (b) a sailing ship underway must keep out of the way of—
 - (i) a ship not under command;
 - (ii) a ship restricted in its ability to manoeuvre; and
 - (iii) a ship engaged in fishing;
- (c) a ship engaged in fishing when underway must, so far as possible, keep out of the way of—
 - (i) a ship not under command; and
 - (ii) a ship restricted in its ability to manoeuvre;

- (d) any ship other than a ship not under command or a ship restricted in its ability to manoeuvre must, if the circumstances of the case allow, avoid impeding the safe passage of a ship constrained by its draught exhibiting either or both of the following signals as prescribed in regulation 27—
 - (i) three all-round red lights in a vertical line; and
 - (ii) a black cylinder; and
- (e) a ship constrained by its draught must navigate with particular caution and have full regard to that special condition.

(2) A seaplane on the water must, in general, keep well clear of all ships and avoid impeding their navigation, however, if the risk of collision exists, the seaplane must comply with this regulation.

(3) A WIG craft when taking off, landing or in flight near the surface of the water, must keep well clear, and avoid impeding the navigation, of all other ships.

(4) A WIG craft operating on the surface of the water, must comply with the provisions of this regulation for a power-driven ship.

Division 3—Conduct of Ships in Restricted Visibility

Conduct of ships in restricted visibility

19.—(1) This Division shall apply to ships not in sight of each other when navigating in or near an area of restricted visibility.

(2) A ship must proceed at a safe speed adapted to the prevailing circumstances and conditions of restricted visibility.

(3) A power-driven ship must have its engines ready for immediate manoeuvre.

(4) Every ship must have due regard to the prevailing circumstances and conditions of restricted visibility when complying with sub-regulation (1).

(5) A ship which detects by radar alone the presence of another ship, must determine whether a close-quarters situation is developing and must determine if risk of collision exists so as to take avoiding action in ample time.

(6) If such action consists of an alteration of course, the following must as far as possible, be avoided—

- (a) an alteration of course to port for a ship forward of the beam, other than for a ship being overtaken; and
- (b) an alteration of course towards a ship abeam or abaft the beam.

(7) Except where it has been determined that there is no risk of collision, a ship that hears the fog signal of another ship apparently forward of its beam or cannot avoid a close-quarters situation with another ship forward of its beam, must—

- (a) reduce its speed to the minimum at which it can be kept on its course;
- (b) if necessary, take all way off; and
- (c) in any event navigate with extreme caution until the danger of collision is over.

PART 3—LIGHTS AND SHAPES

Application

20.—(1) This Part shall apply in all weather conditions.

(2) Lights required by this Part are to be exhibited from sunset to sunrise, during which time the only other lights which may be exhibited are those lights which—

- (a) cannot be mistaken for lights specified in these Regulations;
- (b) do not impair the visibility or distinctive character of lights specified in the Regulations; and
- (c) do not interfere with the keeping of a proper look-out.

(3) The lights specified must, if carried, also be exhibited during the day in restricted visibility which may also be exhibited in all other circumstances where it is considered necessary.

(4) The regulations concerning shapes must be complied with by day.

(5) The lights and shapes specified in these Regulations must comply with the provisions of Schedule 1.

Interpretation

21. In this Division—

“all-round light” means a light showing an unbroken arc over the horizon of 360 degrees;

“flashing light” means a light flashing at regular intervals at a frequency of 120 flashes or more per minute;

“masthead light” means a white light placed over the fore and aft centreline of the ship showing an unbroken light over an arc of the horizon of 225 degrees and fixed to show the light from right ahead to 22.5 degrees (2 points) abaft the beam on both sides of the ship;

“sidelights” 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 the horizon of 112.5 degrees and fixed to show the light from right ahead to 22.5 degrees (2 points) abaft the beam on its respective side. In a ship of less than 20 metres in length, the sidelights may be combined in one lantern carried on the fore and aft centreline of the ship;

“stern light” means a white light placed as close as practicable to the stern showing an unbroken light over an arc of the horizon of 135 degrees and so fixed to show the light from right aft for 67.5 degrees (6 points) on both sides of the ship; and

“towing light” means a yellow light having the same characteristics as the stern light.

Visibility of lights

22. Lights must have intensity as specified in Schedule 1 and must be visible at the following minimum ranges—

- (a) in ships of 50 metres or more in length—
 - (i) a masthead light, 6 miles;
 - (ii) a sidelight, 3 miles;
 - (iii) a stern light, 3 miles;
 - (iv) a towing light, 3 miles; and
 - (v) a white, red, green or yellow all-round light, 3 miles;
- (b) in ships of 20 metres or more in length but less than 50 metres in length—
 - (i) a masthead light, 5 miles;
 - (ii) a sidelight, 2 miles;
 - (iii) a stern light, 2 miles;
 - (iv) a towing light, 2 miles; and
 - (v) a white, red, green, or yellow all-round light, 2 miles;
- (c) in ships of 12 metres or more in length but less than 20 metres in length—
 - (i) a masthead light, 3 miles;
 - (ii) a sidelight, 2 miles;
 - (iii) a stern light, 2 miles;
 - (iv) a towing light, 2 miles; and
 - (v) a white, red, green or yellow all-round light, 2 miles; and
- (d) in ships of less than 12 metres in length—
 - (i) a masthead light, 2 miles;
 - (ii) a sidelight, 1 mile;
 - (iii) a stern light, 2 miles;
 - (iv) a towing light, 2 miles; and
 - (v) a white, red, green or yellow all-round light, 2 miles.

Power-driven ships underway

23.—(1) Subject to sub-regulations (2) and (4), a power-driven ship underway must exhibit—

- (a) a masthead light forward;
- (b) a second masthead light abaft of and higher than the forward one;
- (c) sidelights; and
- (d) a stern light.

(2) A ship of less than 50 metres in length shall not be obliged to exhibit light as required in sub-regulation (1)(a) and (b).

(3) In addition to the lights prescribed in sub-regulation (1), an all-round flashing yellow light must be exhibited by—

- (a) air cushion ships operating in the non-displacement mode; and
- (b) high speed ships whilst operating within enclosed water limits at or above a speed of 25 knots.

(4) Instead of the lights prescribed in sub-regulation (1)—

- (a) a power-driven ship of less than 12 metres in length may exhibit an all-round white light and sidelights; and
- (b) a power-driven ship of less than 7 metres in length whose maximum speed does not exceed 7 knots may exhibit an all-round white light, and must, if practicable, exhibit sidelights.

(5) The masthead light or all-round white light on a power-driven ship of less than 12 metres in length may be displaced from the fore and aft centreline of the ship if—

- (a) in all the circumstances, a centreline fitting is not practicable; and
- (b) the masthead light is offset from the fore and aft centreline to the minimum extent necessary to allow for the safe operation of that ship.

(6) In addition to the lights prescribed in sub-regulation (1), a WIG craft must and may only exhibit a high-intensity all-round flashing red light when—

- (a) taking off;
- (b) landing; or
- (c) in flight near the surface of the water.

Towing and pushing

24.—(1) When towing, a power-driven ship must exhibit—

- (a) instead of either of the masthead lights prescribed in regulation 23(1)(a) and 23(1)(b), two masthead lights in a vertical line, except where the length of tow exceeds 200 metres measured from the stern of the towing ship to the after end of the tow, which shall require 3 such lights in a vertical line to be carried;
- (b) sidelights;
- (c) a stern light;
- (d) a towing light in a vertical line above the stern light;
- (e) when the length of tow exceeds 200 metres, a black diamond shape where it can best be seen; and

- (f) if the towing operation is such that it severely restricts the towing ship and its tow in their ability to deviate from their course—
 - (a) three all-round lights in a vertical line where they can best be seen, the highest and lowest being red and the middle one white; and
 - (b) three black shapes in a vertical line where they can best be seen, the highest and lowest being balls and the middle one a diamond pursuant to regulation 27(2).

(2) When a pushing ship and a ship being pushed ahead are rigidly connected in a composite unit, they shall be regarded as a power-driven ship and must exhibit the appropriate lights prescribed in regulation 23.

(3) A power-driven ship when pushing ahead or towing alongside, other than a composite unit must exhibit—

- (a) instead of either of the masthead lights prescribed in regulation 23(1)(a) and 23(1)(b), two masthead lights in a vertical line;
- (b) sidelights;
- (c) a stern light; and
- (d) if the towing operation is such that it severely restricts the towing ship and its tow in their ability to deviate from their course—
 - (i) three all-round lights in a vertical line where they can best be seen, the highest and lowest being red and the middle one white; and
 - (ii) three black shapes in a vertical line where they can best be seen the highest and lowest being balls and the middle one a diamond pursuant to regulation 27(2).

(4) A ship or object being towed, other than an inconspicuous, partly submerged ship or object, or combination of such ships or objects, must exhibit—

- (a) sidelights;
- (b) a stern light; and
- (c) when the length of tow exceeds 200 metres, a black diamond shape where it can best be seen.

(5) Where from any sufficient cause it is impracticable for a ship or object being towed to exhibit the lights or shapes prescribed, all possible measures must be taken to light the tow or at least to indicate its presence.

(6) Any number of ships being towed alongside or pushed in a group must be lighted as one ship and—

- (a) a ship being pushed ahead, not being part of a composite unit, must exhibit sidelights at the forward end; and
- (b) a ship being towed alongside must exhibit a stern light and, at the forward end, sidelights.

(7) An inconspicuous, partly submerged ship or object, or combination of such ships or objects being towed, must exhibit—

- (a) if it is less than 25 metres in breadth—
 - (i) one all-round white light at or near the forward end except in the case of dracones, which need not exhibit a light at or near the forward end; and
 - (ii) one all-round white light at or near the after end;
- (b) if it is 25 metres or more in breadth, 2 additional all-round white lights at or near the extremities of its breadth;
- (c) if the length of towed object exceeds 100 metres, additional all-round white lights so that the distance between lights does not exceed 100 metres;
- (d) a black diamond at or near the aftermost extremity of the last ship or object being towed, and if the length of tow exceeds 200 metres, an additional black diamond shape where it can best be seen, and located as far forward as practicable.

(8) If it is impracticable for a ship or object being towed to exhibit the lights or shapes prescribed, all possible measures must be taken to light the tow or at least indicate its presence.

(9) Where from any sufficient cause it is impracticable for a ship not normally engaged in towing operations to display the lights for a towing or pushing ahead or towing alongside a ship in sub-regulation (1) or (3), that ship shall not be required to exhibit those lights when engaged in towing another ship in distress or otherwise in need of assistance.

(10) All possible measures must be taken to indicate the relationship between the towing ship and the tow as outlined in regulation 36, in particular by illuminating the tow line.

Sailing ships underway and ships under oars

25.—(1) A sailing ship underway must exhibit a stern light.

(2) A sailing ship of less than 20 metres in length may combine the sidelights and stern light into 1 tricoloured lantern carried at or near the top of the mast where it can best be seen.

(3) In addition to the lights required in sub-regulation (1), a sailing ship underway may exhibit at or near the top of the mast, where they can best be seen, two all-round lights in a vertical line with the upper light red and the lower green, being lights which must not be exhibited in conjunction with the tricoloured lantern.

(4) A sailing ship of less than 7 metres in length must, if practicable, exhibit the sidelights and stern light as prescribed in sub-regulation (1) however, if it does not do so, it must have ready an electric torch or lighted lantern showing a white light which must be exhibited in sufficient time to prevent collision.

(5) A ship under oars may exhibit the lights prescribed in this regulation for sailing ships however, if it does not do so, it must have ready an electric torch or lighted lantern showing a white light which must be exhibited in sufficient time to prevent collision.

(6) A ship proceeding under sail when also being propelled by machinery must exhibit a black conical shape, apex downwards, forward where it can best be seen.

(7) Pursuant to sub-regulation (6), the lights for a power-driven ship prescribed in regulation 23 must be exhibited at night instead of those prescribed in regulation 25.

Fishing ships

26.—(1) A ship engaged in fishing, whether underway or at anchor, must exhibit only the lights and shapes prescribed in this regulation.

(2) Subject to sub-regulation (3), a ship engaged in trawling must exhibit—

- (a) two all-round lights in a vertical line, the upper being green and the lower white; or
- (b) a black shape consisting of two cones with their apexes together in a vertical line one above the other;
- (c) a masthead light abaft of and higher than the all-round green light;
- (d) sidelights; and
- (e) stern light.

(3) A ship of less than 50 metres in length shall not be obliged to exhibit a masthead light as required under sub-regulation (2)(c).

(4) A ship engaged in fishing other than trawling must exhibit—

- (a) two all-round lights in a vertical line, the upper being red and the lower white; or
- (b) a black shape consisting of two cones with their apexes together in a vertical line one above the other; and
- (c) when there is outlying gear extending more than 150 metres horizontally from the ship—
 - (i) an all-round white light; or
 - (ii) a cone apex upwards in the direction of the gear; and
- (d) when making way through the water, sidelights and a stern light.

(5) The additional signals described in Schedule 2 shall apply to a ship engaged in fishing in close proximity to other ships engaged in fishing.

(6) When not engaged in fishing, a ship must not exhibit the lights or shapes prescribed by this regulation, but only those prescribed for a ship of its length.

Ships not under command or restricted in their ability to manoeuvre

27.—(1) A ship not under command must exhibit—

- (a) two all-round red lights in a vertical line where they can best be seen;
- (b) two black balls or similar shapes in a vertical line where they can best be seen; and
- (c) when making way through the water, sidelights and a stern light.

(2) A ship restricted in its ability to manoeuvre, other than a ship engaged in mine clearance operations, must exhibit—

- (a) three all-round lights in a vertical line where they can best be seen, the highest and lowest being red and the middle one white;
- (b) three black shapes in a vertical line where they can best be seen the highest and lowest of these shapes being balls and the middle one a diamond;
- (c) when making way through the water, a masthead light or lights, sidelights, and a stern light; and
- (d) when at anchor, the light, lights, or shape prescribed in regulation 30 for ships at anchor.

(3) A power-driven ship engaged in a towing operation which severely restricts the towing ship and its tow in their ability to deviate from their course must display the lights or shapes prescribed in regulation 24(1) and sub-regulation (2)(a) and (2)(b).

(4) A ship engaged in dredging or underwater operations, which restrict its ability to manoeuvre, must exhibit the lights and shapes prescribed in sub-regulation (2)(a), (b) and (c).

(5) A ship under sub-regulation (4) must exhibit the following additional lights when an obstruction exists—

- (a) two all-round red lights or two black balls in a vertical line to indicate the side on which the obstruction exists;
- (b) two all-round green lights or two black diamonds in a vertical line to indicate the side on which the ship may pass; and
- (c) when at anchor, the lights or shapes prescribed in this sub-regulation instead of the lights or shapes prescribed in regulation 30 for ships at anchor.

(6) If the size of a ship engaged in diving operations makes it impracticable to exhibit all lights and shapes prescribed in regulation 27(4), the following must be exhibited—

- (a) three all-round lights in a vertical line where they can best be seen, the highest and lowest being red and the middle light white; and
- (b) a rigid replica of the International Code flag “A” of—
 - (i) not less than one metre in height; or
 - (ii) in the case of a Fiji ship, of less than six metres in length operating in Fiji waters being not less than 0.6 metres in height,

with measures taken to ensure its all-round visibility.

(7) A ship engaged in mine clearance operations must display three all-round green lights or three black balls in addition to the lights prescribed in regulation 23 or regulation 30 for a power-driven ship underway or at anchor.

(8) Pursuant to sub-regulation (7), one of these lights or shapes must be exhibited near the foremast head and one at each end of the fore yard which shall indicate that it is dangerous for another ship to approach within 1000 metres of the mine clearance ship.

(9) A ship of less than 12 metres in length, except those involved in diving operations, shall not be required to exhibit the lights and shapes in regulation 27.

Ships constrained by their draught

28. A ship constrained by its draught may, in addition to the lights prescribed for power-driven ships in regulation 23, exhibit where they can best be seen, three all-round red lights in a vertical line or a black cylinder.

Pilot ships

29.—(1) A ship engaged in pilotage duties must exhibit at or near the masthead, two all-round lights in a vertical line, the upper being white and the lower red, and—

- (a) when underway, sidelights and a stern light; and
- (b) when at anchor the light, lights or shape prescribed in regulation 30 for ships at anchor.

(2) A pilot ship when not engaged on pilotage duties must exhibit the lights or shapes prescribed for a ship of its length.

Anchored ships and ships aground

30.—(1) A ship at anchor must exhibit where it can best be seen—

- (a) in the fore part, an all-round white light or one black ball; and
- (b) another all-round white light at or near the stern at a lower level than the light in the fore part,

except a ship that is less than 50 metres in length which may exhibit an all-round white light where it can best be seen.

(2) A ship of 100 metres or more in length must also use the available working or equivalent lights to illuminate its decks when at anchor, whilst any other ship at anchor may also do so.

(3) A ship of less than 7 metres in length at anchor, not in or near a narrow channel, fairway, anchorage, or where other ships normally navigate, shall not be required to exhibit the shape prescribed for a ship at anchor.

(4) A ship aground must exhibit the white light or lights for a ship at anchor prescribed in sub-regulation (1), and where they can best be seen—

- (a) two all-round red lights in a vertical line; and
- (b) three black balls in a vertical line.

(5) A ship of less than 12 metres in length, when aground, is not required to exhibit the lights or shapes prescribed in sub-regulation (4), for a ship aground.

Seaplanes and WIG craft

31. Except as prescribed in regulation 23(4), if it is not practicable to exhibit any of the lights or shapes prescribed in this Part, a seaplane or WIG craft may exhibit lights and shapes that are closely similar, in characteristics and position.

PART 4—SOUND AND LIGHT SIGNALS

Interpretation

32. In this Part—

“prolonged blast” means a blast of four to six seconds duration;

“short blast” means a blast of about one second duration; and

“whistle” means any sound signalling appliance capable of producing the prescribed blasts and which complies with the specifications in Schedule 3.

Equipment for sound signals

33.—(1) Every ship of—

(a) 12 metres or more but less than 20 metres in length must be provided with a whistle;

(b) 20 metres or more but less than 100 metres in length must be provided with a whistle and a bell; and

(c) 100 metres or more in length must be provided with a whistle, a bell and a gong.

(2) The tone and sound of a gong must not be confused with that of the bell.

(3) The whistle, bell and gong must comply with the specifications in Schedule 3.

(4) The bell, gong or both may be replaced by other equipment having the same respective sound characteristics, provided the equipment are capable of being sounded manually.

(5) A ship of less than 12 metres in length shall not be obliged to carry the sound signalling appliances prescribed, but must be provided with other means of making an efficient sound signal.

Manoeuvring and warning signals

34.—(1) When ships are in sight of each other, a power-driven ship underway, manoeuvring as authorised or required by this regulation, must indicate such manoeuvre by the following signals on its whistle—

(a) one short blast to mean “I am altering my course to starboard”;

(b) two short blasts to mean “I am altering my course to port”; or

(c) three short blasts to mean “I am operating astern propulsion”.

(2) Any ship may supplement the whistle signals prescribed in sub-regulation (1) with the following light signals, repeated as appropriate, whilst the manoeuvre is being carried out—

(a) one flash to mean “I am altering my course to starboard”;

- (b) two flashes to mean “I am altering my course to port”; or
- (c) three flashes to mean “I am operating astern propulsion”.

(3) The duration of each flash must be about one second, the interval between successive flashes must be about one second, and the interval between successive signals must not be less than 10 seconds.

(4) The light used for this signal must, if fitted, be an all-round white light and must be visible for a minimum distance of 5 miles and comply with paragraph 12.0 of Schedule 1.

(5) When in sight of each other in a narrow channel or fairway—

- (a) a ship intending to overtake another must indicate its intention in compliance with regulation 10 by sounding one of the following sound signals on its whistle—
 - (i) two prolonged blasts followed by one short blast to mean “I intend to overtake you on your starboard side”; or
 - (ii) two prolonged blasts followed by two short blasts to mean “I intend to overtake you on your port side”; and
- (b) the ship about to be overtaken when acting in compliance with regulation 10 must indicate its agreement by sounding a signal in the following order on its whistle: one prolonged, one short, one prolonged and one short blast.

(6) When ships in sight of each other are approaching each other and either fails to understand the intentions or actions of the other ship, or is in doubt as to whether sufficient action is being taken by the other ship to avoid collision, the ship in doubt must immediately indicate such doubt by sounding at least five short and rapid blasts on its whistle which may be supplemented by a light signal of at least 5 short and rapid flashes.

(7) A ship nearing a bend or an area of a channel or fairway where other ships may be obscured by an intervening obstruction must sound one prolonged blast which must be answered with a prolonged blast by any approaching ship that may be within hearing around the bend or behind the obstruction.

(8) If whistles are fitted on a ship at a distance apart of more than 100 metres, only one whistle must be used for giving manoeuvring and warning signals.

Sound signals in restricted visibility

35.—(1) In or near an area of restricted visibility, by day and by night, the following signals must be used—

- (a) subject to paragraph (b)—
 - (i) a power-driven ship making way through the water must sound one prolonged blast at intervals of not more than 2 minutes;
 - (ii) a power-driven ship underway but which has stopped, making no way through the water, must sound two prolonged blasts in succession with 2 seconds between them at intervals of not more than 2 minutes;

- (b) the following ships—
- (i) not under command, ships restricted in their ability to manoeuvre, ships constrained by their draught, sailing ships, ships engaged in fishing, ships engaged in towing or pushing another ship; and
 - (ii) ships engaged in fishing at anchor and ships restricted in their ability to manoeuvre when carrying out work at anchor,
- must sound three blasts in succession, namely one prolonged followed by two short blasts, at intervals of not more than 2 minutes;
- (c) if crewed, a ship towed or, if more than one ship is towed, the last ship of the tow, must sound four blasts in succession, namely one prolonged followed by three short blasts which must be made at intervals of not more than 2 minutes, and where practicable, be made immediately after the signal made by the towing ship;
- (d) when a pushing ship and a ship being pushed ahead are rigidly connected in a composite unit, they are to be regarded as a power-driven ship and sound the appropriate sound signal as described in paragraph (a);
- (e) a ship at anchor must ring a bell rapidly for about 5 seconds at intervals of not more than 1 minute and—
- (i) if the ship is 100 metres or more in length, the bell must be sounded in the forepart of the ship; and
 - (ii) immediately after the ringing of the bell, the gong must be sounded rapidly for about five seconds at the after part of the ship;
- (f) pursuant to paragraph (e), a ship at anchor may additionally sound three blasts in succession, namely one short, one prolonged, and one short blast to give warning of its position;
- (g) a ship aground must give the bell signal, and if required, the gong signal prescribed for a ship at anchor in paragraph (e), in addition to three separate and distinct strokes on the bell immediately before and after the rapid ringing of the bell;
- (h) pursuant to paragraph (g), a ship aground may also sound an appropriate whistle signal;
- (i) a ship of—
- (i) less than 12 metres in length shall not be obliged to give any signal prescribed in this regulation;
 - (ii) 12 metres or more in length but less than 20 metres shall not be obliged to give any bell signal prescribed in paragraphs (e) and (g), however, if the ship does not give any such signal, it must make some other efficient sound signal at intervals of not more than 2 minutes; and

- (iii) when engaged on pilotage duty, a pilot ship may in addition to the signals prescribed for power-driven ships in paragraph (a) or ships at anchor in paragraph (e), sound an identity signal consisting of four short blasts.

Signals to attract attention

36.—(1) If necessary to attract the attention of another ship, any ship may make light or sound signals distinct from any other signal authorised in these Regulations and may direct the beam of its searchlight in the direction of the danger in such a way as to not embarrass any ship or misuse any light.

(2) Any light to attract the attention of another ship must be such that it cannot be mistaken for any aid to navigation, and any high intensity intermittent or revolving lights, such as strobe lights, must be avoided.

Distress signals

37.—(1) When a ship is in distress it must use or exhibit the following signals either together or separately to indicate distress and need of assistance—

- (a) a gun or other explosive signals fired at intervals of about one 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 any signalling method consisting of the group “...- - -...” (SOS) in 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 anything resembling a ball;
- (h) flames on a ship example, from a burning tar barrel, oil barrel, etc.;
- (i) a rocket parachute flare or a hand-flare showing a red light;
- (j) a smoke signal giving off orange-coloured smoke;
- (k) slowly and repeatedly raising and lowering arms outstretched to each side;
- (l) a distress alert by means of digital selective calling (DSC) transmitted on—
 - (i) VHF channel 70; or
 - (ii) MF/HF on the frequencies 2187.5 kHz, 8414.5 kHz, 4207.5 kHz, 6312 kHz, 12577 kHz or 16804.5 kHz;
- (m) a ship-to-shore distress alert transmitted by the ship’s Recognised Mobile Satellite Service Provider (RMSSP) ship earth station;
- (n) signals transmitted by emergency position-indicating radio beacons; or
- (o) approved signals transmitted by radio communications systems, including survival craft radar transponders.

(2) The following signals provided in the International Code of Signals, the International Aeronautical and Maritime Search and Rescue Manual, Volume III and the following signals shall also be signals for the purpose of this regulation—

- (a) a piece of orange-coloured canvas with either a black square and circle or other appropriate symbol (for identification from the air); or
- (b) a dye marker.

PART 5—SHIPS OF SPECIAL FUNCTION

Ships of special function

38.—(1) A ship of special construction or purpose that the Chief Executive Officer has determined cannot fully comply with the provisions of these Regulations relating to number, position, range, or arc of visibility of lights or shapes must comply with such other provisions relating to the number, position, range, or arc of visibility of lights or shapes as determined by the Chief Executive Officer to be the closest possible compliance with these Regulations for that particular ship.

(2) A ship of special construction or purpose that the Chief Executive Officer has determined cannot fully comply with the provisions of these Regulations to the disposition and characteristics of sound-signalling appliances must comply with such other provisions relating to the disposition and characteristics of sound-signalling appliances as determined by the Chief Executive Officer to be the closest possible compliance with these Regulations for that particular ship.

Observance of these Regulations

39.—(1) The owner of a ship to which these Regulations apply must ensure that the ship is provided with all such lights, shapes and means of making fog signals as required by these Regulations.

(2) The master or other person for the time being responsible for the navigation of a ship to which these Regulations apply must—

- (a) ensure that all such lights, shapes, and means of making fog signals, required by these Regulations, are carried, exhibited and used in accordance with these Regulations;
- (b) refrain from carrying, exhibiting, or using on the ship any lights, shapes, or means of making fog signals other than those required or permitted by these Regulations to be carried, exhibited or used on the ship;
- (c) ensure that the ship is navigated in accordance with these Regulations; and
- (d) refrain from navigating the ship in a manner that is contrary to these Regulations.

Responsibility

40.—(1) Nothing in these Regulations shall exonerate any ship, its owner, master or crew, from the consequences of any neglect to comply with these Regulations, or of the neglect of any precaution which may be required by the ordinary practice of seafarers, or the special circumstances of the case.

(2) In interpreting and complying with these Regulations, due regard must be given to all dangers of navigation, collision, and any special circumstances, including the limitations of the ships involved, that may make a departure from the requirements of these Regulations necessary to avoid immediate danger.

Made this 14th day of December 2014.

P. TIKODUADUA
Minister for Infrastructure and Transport

SCHEDULE 1

POSITIONING AND TECHNICAL DETAILS OF LIGHTS AND SHAPES

1.0 Definitions

In this Schedule—

“Height above the hull” means height above the uppermost continuous deck. This height must be measured from the position vertically beneath the location of the light.

2.0 Vertical positioning and spacing of lights

2.1 On a power-driven ship of 20 metres or more in length, the masthead lights must be placed as follows—

- (a) the forward masthead light or, if only one masthead light is carried, then that light, at a height above the hull of not less than 6 metres, and if the breadth of the ship exceeds 6 metres, then at a height above the hull not less than such breadth, however, the light need not be placed at a greater height above the hull than 12 metres; and
- (b) when two masthead lights are carried the aft one must be at least 4.5 metres vertically higher than the forward one.

2.2 The vertical separation of masthead lights of power-driven ships must be such that in normal conditions of trim the after light will be seen over and separate from the forward light at a distance of 1000 metres from the stem when viewed from sea-level.

2.3 The masthead light of a power-driven ship of 12 or more metres but less than 20 metres in length must be placed at a height above the gunwale of not less than 2.5 metres.

2.4 A power-driven ship of less than 12 metres in length may carry the uppermost light at a height of less than 2.5 metres above the gunwale. However, when a masthead light is carried in addition to sidelights and a stern light or the all-round light prescribed in regulation 21(3)(a) is carried in addition to sidelights, then such a masthead light or all-round light must be carried at least 1 metre higher than the sidelights.

- 2.5 One of the two or three masthead lights prescribed for a power-driven ship engaged in towing or pushing another ship must be placed in the same position as either the forward masthead light or the after masthead light.
- BUT, if carried on the after mast, the lowest after masthead light must be 4.5 metres vertically higher than the forward masthead light.
- 2.6 Subject to paragraph 1.12, the masthead light or lights prescribed in regulation 23(1) must be so placed as to be above and clear of all other lights and obstructions, EXCEPT that when it is impracticable to carry the all-round lights prescribed by regulation 27(2)(a) or regulation 28 below the masthead lights, they may be carried—
- (a) above the after masthead light(s); or
 - (b) vertically in between the forward masthead light(s) and after masthead light(s), provided that the requirement of paragraph 1.3(3) of the Schedule (relating to horizontal distance) is complied with.
- 2.7 The sidelights of a power-driven ship must be placed at a height above the hull not greater than three-quarters of that of the forward masthead light. They must not be so low as to be interfered with by deck lights.
- 2.8 The sidelights, if in a combined lantern and carried on a power-driven ship of less than 20 metres in length, must be placed not less than 1 metre below the masthead light.
- 2.9 If these rules prescribe two or three lights to be carried in a vertical line, they must be spaced as follows—
- (a) on a ship of 20 metres in length or more, such lights must be spaced not less than 2 metres apart, and the lowest of these lights must, except where a towing light is required, be placed at a height of not less than 4 metres above the hull; and
 - (b) on a ship of less than 20 metres in length, such lights must be spaced not less than 1 metre apart and the lowest of these lights must, except where a towing light is required, be placed at a height of not less than 2 metres above the gunwale; and
 - (c) when three lights are carried, they must be equally spaced.
- 2.10 The lower of the two all-round lights prescribed for a ship when engaged in fishing must be at a height above the sidelights not less than twice the distance between the two vertical lights.
- 2.11 The forward anchor light prescribed in regulation 30(1), when two are carried, must not be less than 4.5 metres above the after one.
- On a ship of 50 metres or more in length, this forward anchor light must be placed at a height of not less than 6 metres above the hull.

3.0 Horizontal positioning and spacing of lights

- 3.1 When 2 masthead lights are prescribed for a power-driven ship, the horizontal distance between them—
- (a) must not be less than one-half of the length of the ship; but
 - (b) need not be more than 100 metres.

The forward light must be placed not more than one quarter of the length of the ship from the stem.

- 3.2 On a power-driven ship of 20 metres or more in length, the sidelights must not be placed in front of the forward masthead lights. They must be placed at or near the side of the ship.
- 3.3 When the lights prescribed in regulation 27(2)(a) and regulation 28 (all-round lights for ships restricted in their ability to manoeuvre and ships constrained by their draught) are placed vertically between the forward masthead light(s) and the after masthead light(s), these all-round lights must be placed at a horizontal distance of not less than 2 metres from the fore and aft centreline of the ship in the athwartship direction.
- 3.4 When only one masthead light is prescribed for a power-driven ship, this light must be exhibited forward of amidships; except that a ship of less than 20 metres in length need not exhibit this light forward of amidships but must exhibit it as far forward as practicable.

4.0 Details of location of direction-indicating lights for fishing ships, dredgers, and ships engaged in underwater operations

- 4.1 The light indicating the direction of the outlying gear from a ship engaged in fishing as prescribed in regulation 26(3)(b) must be placed at a horizontal distance of not less than 2 metres and not more than 6 metres away from the two all-round red and white lights.

This light must be placed not higher than the all-round white light prescribed in regulation 26(3)(a) and not lower than the sidelights.

- 4.2 The lights and shapes on a ship engaged in dredging or underwater operations that indicate the obstructed side or the side on which it is safe to pass or both, as prescribed in regulation 27(4)(a) and 27(4)(b), must be placed at the following distance from the lights or shapes prescribed in regulation 27(2)(a) and 27(2)(b) (for ships restricted in their ability to manoeuvre)—
- (a) at the maximum practical horizontal distance; and
 - (b) in no case less than 2 metres.

5.0 Screens for sidelights

- 5.1 The sidelights of ships of 20 metres or more in length must be fitted with inboard screens painted matt black, and meet the requirements of paragraph 1.9.

- 5.2 On ships of less than 20 metres in length, the sidelights, if necessary to meet the requirements of paragraph 1.9 must be fitted with inboard matt black screens.

With a combined lantern, that has a single vertical filament and a very narrow division between the green and red sections, external screens need not be fitted.

6.0 Shapes

- 6.1 Shapes must be black and of the following sizes—

- (a) a ball must have a diameter of not less than 0.6 metres;
- (b) a cone must have a base diameter of not less than 0.6 metres and a height equal to its diameter;
- (c) a cylinder must have a diameter of at least 0.6 metres and a height of twice its diameter; and
- (d) a diamond shape must consist of two cones as defined in paragraph 1.6(1) (b) and having a common base.

- 6.2 The vertical distance between shapes must be at least 1.5 metres.

- 6.3 In a ship of less than 20 metres in length, shapes of lesser dimensions, but commensurate with the size of the ship, may be used and the distance apart may be correspondingly reduced.

7.0 Colour specification of lights

- 7.1 The chromaticity of all navigation lights must conform to the following standards, which lie within the boundaries of the area of the diagram specified for each colour by the International Commission on Illumination (CIE).

- 7.2 The boundaries of the area for each colour are given by indicating the corner co-ordinates, which are as follows—

- (a) White

X	0.525	0.525	0.452	0.310	0.310	0.443
Y	0.382	0.440	0.440	0.348	0.283	0.382

- (b) Green

X	0.028	0.009	0.300	0.203
Y	0.385	0.723	0.511	0.356

- (c) Red

X	0.680	0.660	0.735	0.721
Y	0.320	0.320	0.265	0.259

- (d) Yellow

X	0.612	0.618	0.575	0.575
Y	0.382	0.382	0.425	0.406

8.0 Intensity of lights

8.1 The minimum luminous intensity of lights must be calculated by using the formula—

$$I = 3.43 \times 10^6 \times T \times D^2 \times K^{-D}$$

Where I is luminous intensity in candelas under service conditions;

T is the threshold factor 2×10^{-7} lux⁻⁷;

D is the range of visibility (luminous range) of the light in nautical miles; and

K is the atmospheric transmissivity.

For prescribed lights, the value of K must be 0.8, corresponding to a meteorological visibility of approximately 13 nautical miles.

8.2 A selection of figures derived from the formula is given in the following table—

<i>Range of visibility (luminous range) of light in nautical miles</i>	<i>Luminous intensity of light in candelas K= 0.8</i>
1	0.9
2	4.3
3	12
4	27
5	52
6	94

Note : The maximum luminous intensity of navigation lights should be limited to avoid undue glare. This must not be activated by a variable control of the luminous intensity \

9.0 Horizontal sectors

9.1 In the forward direction, sidelights as fitted on the ship must show the minimum required intensities. The intensities must decrease to reach practical cut-off between 1 degree and 3 degrees outside the prescribed sectors.

9.2 For stern lights, masthead lights, and, at 22.5 degrees abaft the beam, sidelights the following provisions apply—

(a) the minimum required intensities must be maintained over the arc of the horizon up to 5 degrees within the limits of the sectors prescribed in regulation 21; and

(b) from 5 degrees within the prescribed sectors, the intensity may decrease by 50 per cent up to the prescribed limits. It must decrease steadily to reach practical cut-off at not more than 5 degrees outside the prescribed sectors.

9.3 All-round lights must be located so as to not be obscured by masts, topmasts or structures within angular sectors of more than 6 degrees,

EXCEPT anchor lights prescribed in regulation 32, which need not be placed at an impracticable height above the hull.

If it is not practicable to comply with this paragraph by exhibiting only one all-round light, two all-round lights must be used. They must be suitably positioned or screened so that they appear, as far as practicable, as one light at a distance of one mile.

10.0 Vertical sectors

10.1 The vertical sectors of electric lights as fitted, with the exception of lights on sailing ships underway, must ensure that –

- (a) at least the required minimum intensity is maintained at all angles from 5 degrees above to 5 degrees below the horizontal; and
- (b) at least 60 per cent of the required minimum intensity is maintained from 7.5 degrees above to 7.5 degrees below the horizontal.

10.2 In the case of sailing ships underway, the vertical sectors of electric lights as fitted must ensure that—

- (a) at least the required minimum intensity is maintained at all angles from 5 degrees above to 5 degrees below the horizontal; and
- (b) at least 50 per cent of the required minimum intensity is maintained from 25 degrees above to 25 degrees below the horizontal.

10.3 In the case of non-electric lights these specifications must be met as closely as possible.

11.0 Intensity of non-electric lights

Non-electric lights must, so far as practicable, comply with the minimum intensities, as specified in the table given in paragraph 1.8.

12.0 Manoeuvring light

12.1 The manoeuvring light described in regulation 34(2) must be placed in the same fore and aft vertical plane as the masthead light or lights.

12.2 Where practicable, it should be at a minimum height of 2 metres vertically above the forward masthead light, provided that it is carried at least 2 metres vertically above or below the after masthead light.

12.3 On a ship where only one masthead light is carried, the manoeuvring light, if fitted, must be carried where it can best be seen, at least 2 metres vertically apart from the masthead light.

13.0 High Speed Ship

13.1 The masthead light of a high speed ship may be placed at a height lower than that prescribed in paragraph 1.2(1)(a) if the base angle of the isosceles triangle formed by the sidelights and masthead light, when seen in end elevation, is not less than 27 degrees.

- 13.2 In the case of a high speed ship of 50 metres or more in length, the vertical separation between the foremost and mainmast lights, required by paragraph 1.2(1)(b), may be modified if that distance is not less than the value determined by the following formula:

$$\frac{y=(a+17\downarrow)+2}{1000}$$

where:

- y is the height of the mainmast light above the foremast light, in metres;
 a is the height of the foremast light above the water surface in service conditions, in metres;
 ↓ is the trim in service condition, in degrees; and
 C is the horizontal separation of masthead lights, in metres.

14.0 Approval

The construction of lights and shapes and the installation of lights on board the ship must be to the satisfaction of—

- (a) in the case of a Fiji ship, the Chief Executive Officer; and
 (b) in the case of a foreign ship, the State whose flag the ship is entitled to fly.

SCHEDULE 2

ADDITIONAL SIGNALS FOR FISHING SHIPS FISHING IN CLOSE PROXIMITY

1.0 General

The lights mentioned in this Schedule, if exhibited by fishing ships in close proximity to other fishing ships in accordance with regulation 26(4) must—

- (a) be placed where they can best be seen;
 (b) be at least 0.9 metres apart but at a lower level than the all-round fishing or trawling lights prescribed in sub-regulation 26(2)(a) and 26(3)(a); and
 (c) be visible all-round the horizon at a distance of at least one mile but at a lesser distance than the lights prescribed by this Schedule for fishing ships.

2.0 Signals for trawlers

2.1 Ships of 20 metres or more in length engaged in trawling, whether using demersal or pelagic gear, or involved in pair trawling, must exhibit—

- (a) when shooting their nets:
 two white lights in a vertical line; and
 (b) when hauling their nets:
 one white light over one red light in a vertical line; and

- (c) when the net has come fast upon an obstruction:
two red lights in a vertical line; and
 - (d) when engaged in pair trawling by night:
a searchlight directed forward and in the direction of the other ship of the pair.
- 2.2 A ship of less than 20 metres in length engaged in trawling, whether using demersal or pelagic gear or engaged in pair trawling, may exhibit the lights prescribed in paragraph 2.2(1).

3.0 Signals for purse seiners

Ships engaged in fishing with purse seine gear may exhibit 2 yellow flashing lights in a vertical line. These lights must flash alternately every second and with equal light and occultation duration.

These lights must only be exhibited when the ship is hampered by its fishing gear.

SCHEDULE 3

TECHNICAL DETAILS OF SOUND SIGNAL APPLIANCES

- 1.0 Whistles
- 1.1 Frequencies and range of audibility
- (a) The fundamental frequency of the signal must lie within the range 70-700Hz;
 - (b) The range of audibility of the signal from a whistle must be determined by those frequencies, which may include the fundamental and/or one or more higher frequencies, that provide the sound pressure levels specified in paragraph 3.1(3), and that lie within the range—
 - (i) 180-700 Hz ($\pm 1\%$), for a ship of 20 metres or more in length; or
 - (ii) 180-2100 Hz ($\pm 1\%$), for a ship of less than 20 metres in length.
- 1.2 Limits of fundamental frequencies
- To ensure a wide variety of whistle characteristics, the fundamental frequency of a whistle must be between the following limits—
- (a) 70-200 Hz, for a ship 200 metres or more in length;
 - (b) 130-350 Hz for a ship 75 metres but less than 200 metres in length; and
 - (c) 250-700 Hz, for a ship less than 75 metres in length.

1.3 Sound signal intensity and range of audibility

A whistle fitted in a ship must provide, in the direction of maximum intensity of the whistle and at a distance of 1 metre from it, a sound pressure level in at least on 1/3-octave band—

- (a) within the range of frequencies—
- (i) 180-700 Hz ($\pm 1\%$), for a ship of 20 metres or more in length; or
 - (ii) 180-2100 Hz ($\pm 1\%$), for a ship of less than 20 metres in length;
- (b) of not less than the appropriate figure given in the table below—

<i>Length of ship in metres</i>	<i>1/3-octave band level at 1 metre in dB referred to $2 \times 10^{-5} \text{ N/m}^2$</i>	<i>Audibility range in nautical miles</i>
200 or more	143	2.0
75 or more but less than 200	138	1.5
20 or more but less than 75	130	1.0
Less than 20	120*	0.5
	115 +	
	111 #	

** if the measured frequencies lie within the range 180-450Hz

+ if the measured frequencies lie within the range 450-800Hz

if the measured frequencies lie within the range 800-2100Hz

The range of audibility in the table is for information only. It is approximately the range at which a whistle may be heard on its forward axis, with 90% probability in conditions of still air, on board a ship having average background noise level at the listening posts (taken to be 68 dB in the octave band centred on 250 Hz and 63 dB in the octave band centred on 500 Hz).

In practice, the range at which a whistle may be heard is extremely variable and depends critically on weather conditions. The values given can be regarded as typical, but under conditions of strong wind or high ambient noise level at the listening post, the range may be much reduced.

1.4 Directional properties

The sound pressure level of a directional whistle must be not more than 4dB below the prescribed sound pressure level on the axis at any direction in the horizontal plane within ± 45 degrees of the axis. The sound pressure level at any other direction in the horizontal plane must be not more than 10 dB below the prescribed sound pressure level on the axis, so that the range in any direction will be at least half the range on the forward axis. The sound pressure level must be measured in the 1/3rd- octave band which determines the audibility range.

1.5 Positioning of whistles

When a directional whistle is to be used as the only whistle on a ship, it must be installed with its maximum intensity directed straight ahead.

A whistle must be placed as high as practicable on a ship, in order to reduce interception of the emitted sound by obstructions and also to minimise hearing damage risk to personnel. The sound pressure level of the ship's own signal at listening posts must not exceed 110 dB (A) and, as far as practicable, should not exceed 100 dB (A).

1.6 Fitting of more than one whistle

If whistles are fitted at a distance apart of more than 100 metres, it must be so arranged that they are not sounded simultaneously.

1.7 Combined whistle systems

If, due to the presence of obstructions, the sound field of a single whistle or one of the whistles referred to in paragraph 3.1(6) is likely to have a zone of greatly reduced signal level, a combined whistle system should be fitted so as to overcome this reduction in signal.

For the purpose of this rule, a combined whistle system is to be regarded as a single whistle.

The whistles of a combined system must be located at a distance apart of not more than 100 metres and arranged to be sounded simultaneously. The frequency of any one whistle must differ from those of the others by at least 10 Hz.

2.0 Bell or Gong

2.1 Intensity of signal

A bell or gong, or other device having similar sound characteristics, must produce a sound pressure level of not less than 110 dB at a distance of one metre from it.

2.2 Construction—

- (a) bells and gongs must be made of corrosion-resistant material and designed to give a clear tone;
- (b) the diameter of the mouth of the bell must not be less than 300 millimetres for ships of 20 metres or more in length;
- (c) where practicable, a power-driven bell striker is recommended to ensure constant force, but manual operation must be possible; and
- (d) the mass of the striker must not be less than 3% of the mass of the bell.

3.0 Approval

The construction of sound signal appliances, their performance, and their installation on board the ship must be to the satisfaction of—

- (a) in the case of Fiji ships, the Chief Executive Officer; or
- (b) in the case of a foreign ship, the State whose flag the ship is entitled to fly.