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Board of Marine Inspectors
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**PROMULGATION OF RULES AND REGULATION
FOR THE BOARD OF MARINE INSPECTORS**

Pursuant to the authority vested in the Board of Marine Inspectors pursuant to Section 121 of Chapter 7 of the Palau National Code, these Regulations governing the operation of vessels operating on the waters of the Republic of Palau are hereby promulgated and adopted by the Board of Marine Inspectors.

IN WITNESS WHEREOF, we have hereunder set our hands and affix our signatures this 8th day of December, 1997, in the State of Koror, Republic of Palau.

/s/ _____
Captain Hideo S. Tell, MM
Principal Surveyor
Chairman, BMI

/s/ _____
Captain Benito Thomas, MO
Surveyor, Hull Section
Member, BMI

/s/ _____
Kang-ichi Hideo, ME
Surveyor, Machinery Section
Member, BMI

/s/ _____
Arvin Raymond, Chief
Division of Transportation
Ministry of Commerce & Trade

These Rules and Regulations governing the operation of vessels operating on the waters of the Republic of Palau are hereby approved and shall be promulgated and published according to law.

Approved this 2nd day of February, 1998.

/s/ _____
Kuniwo Nakamura
President
Republic of Palau

REGULATIONS GOVERNING THE OPERATION OF VESSELS OPERATING ON THE WATERS OF THE REPUBLIC OF PALAU

Applicability

Applicability. The following Regulations are applicable to all vessels registered under the laws of the Republic of Palau or operated within the territorial waters of the Republic of Palau.

Chapter I Definitions

Section 1. Definition of Terms

The following terms, as used in this regulation, are defined as follows:

- (a) "Board" means the Board of Marine Inspectors.
- (b) "Chairman" means the Chairman of the Board of Marine Inspectors.
- (c) "Inspector" means any member of the Board of Marine Inspectors or any person duly appointed by the Board to make safety inspections of vessels.
- (d) "Approved" means approved by the Board of Marine Inspectors unless otherwise stated.
- (e) "Vessel" includes every type or description of craft other than a seaplane on the water which is used or capable of being used as a means of transportation on water. This definition includes, but is not limited to the following: boat, motorboat, houseboat, rowboat, powerboat, jetboat, fishing boat, towboat, flatboat, sailboat, cruiser, motor vessel, ship, barge, scow, tug, floating cabana, party boat, charter boat, ferryboat, canoe, raft, or any buoyant device permitting or capable of permitting free floatation.
- (f) "Motorboat" means any vessel propelled by machinery (including steam) of 65 feet or less in length regardless of whether or not such machinery is the principal source of power.
- (g) "Motor Vessel" means any vessel propelled by machinery (except steam) over 65 feet in length regardless of whether or not such machinery is the principal source of power.
- (h) "Sailboat or Sailing Vessel" means any vessel propelled by wind effect on the sail.
- (i) "Fishing Vessel" means a vessel used for catching fish, whales, seals, walrus or other marine living resources.
- (j) "Commercial Fishing" means catching or collecting fish or other marine living resources for the purpose of selling, manufacturing, processing or other commercial purposes.

(k) "Machinery" includes an inboard or outboard engine and any other type of motor or mechanical device capable of propelling a vessel.

(l) "Hand Propelled" means any vessel which is propelled by hand, which includes, but not limited to, oars, paddles, or other contrivances, and upon which no mechanical propulsion device such as electric motor, steam, or internal combustion engine or sail is used for the operation of such vessel.

(m) "Operator" refers to the person who operates and/or has charge of the navigation or use of a vessel.

(n) "Owner" means the person who claims lawful possession of a vessel by virtue of legal title or equitable interest therein which entitles him to such possession.

(o) "Length" refers to the over-all length of the hull extending from the forward end to the aft end over the deck, excluding sheer, measured in a straight line from center line. Bow sprits, bumpkins, rudders, outboard motor brackets, and similar fittings or attachments are not to be included in the measurement. Length shall be stated in feet and inches.

(p) "Point" means eleven and one-quarter degrees of arc.

(q) "Visible" means visible on a dark night with a clear atmosphere.

(r) "Underway" means not at anchor or made fast to shore or ground.

(s) "Navigable waters" as used in these rules and regulations shall be construed to mean the territorial waters of the Republic of Palau and include that part of the sea comprehended within the envelope of all arcs of circles having a radius of 12 nautical miles drawn from all points of the barrier reef, fringing reef, or other such reef system of the Republic of Palau, measured from the low water line, or in the absence of such reef system, the distance to be measured from the low water line of any island, islet, atoll, reef, or rocks within the jurisdiction of the Republic of Palau.

(t) "Port" means the left side of a vessel looking from the stern toward the bow.

(u) "Starboard" means the right side of a vessel looking from the stern toward the bow.

(v) "Stern" means aft or the rear end of a vessel.

(w) "Bow" means the forward part of a vessel.

(x) "Portable fire extinguisher" means any type of fire extinguisher which is entirely portable and the gross weight of which, fully charged, does not exceed 55 pounds, and also any type exceeding 55 pound in weight which is equipped with suitable hose and nozzle on reel or other practicable means for reaching any part of the space protected.

(y) "Passenger" means any person carried on the vessel for a voyage or part thereof who is not a member of the crew.

(z) "Carrying freight for hire" means the carriage of any goods, wares, or merchandise or any other freight for a valuable consideration whether directly or indirectly flowing to the owner, charterer, agent or any other person interested in the vessel.

(aa) "Bell" means any device which, when struck, produces a clear bell-like tone of full round characteristics for sounding bell signals.

Section 2. Tonnage and Related Ship Measurements

(a) There are many types of "tonnage" and other related measurements used in transportation. A brief explanation of the most common ones are presented for information of those using the terms.

(b) There are two major (separate and distinct) types of tonnage. One is based on weight while the other designates a measurement value. There are, in addition, several tonnage designations which do not refer to either of these categories. Also, "weight" tonnage may be a "ton" of 2,240 lbs. or 2,000 lbs., depending on what it is to designate. Explanation will be given in the proper category.

1. Short Ton - Weight of 2,000 lbs.
2. Long Ton - Weight of 2,240 lbs.

(c) First, we must consider that every floating body (ship, barge, raft, etc.) will displace its own weight of water. Sea (salt) water weighs approximately 64 lbs. per cubic foot. If we know that portion of a floating ship which is under water, it is a simple matter to determine the ship's displacement. Therefore, we consider displacement type of "tonnage".

1. Displacement Tonnage - Light. The weight of the ship, excluding cargo, passengers, fuel, water, stores, dunnage and such other items necessary for use on a voyage. Computed at 2,240 lbs. per ton.
2. Displacement Tonnage - Loaded. The weight of the ship, including cargo, passengers, fuel, water, stores, dunnage and such other items necessary for use on a voyage. Computed at 2,240 lbs. per ton.
3. Deadweight Tonnage - (DWT). The actual carrying capacity of the ship. It is the only practical means of comparing cargo ships. Simply stated, it is the difference between the light and loaded displacement tonnage and represents the tonnage a ship can carry.

(d) In comparing various ships, we sometimes use tonnage based on volume. Use of volume tonnage for comparison purposes between cargo ships has given way to dead weight tonnage in recent years. Measurement is in units of 100 cubic feet with each unit expressed as one ton.

1. Gross Registered Tonnage - (GRT). The total internal volume of the ship, (Expressed in

units of 100 cubic feet per ton).

2. Net Registered Tonnage - (NRT). The gross registered tonnage, less certain deductions for machinery, passenger and crew spaces, storerooms and spaces used for navigating the vessel. All spaces authorized for deduction must be permanently marked to indicate their use. (Expressed in units of 100 cubic feet per ton).

(e) Terms of measurement, other than tonnage, used to compare carrying capacity of ships' cargo spaces expressed in cubic feet.

1. Grain Cubic Capacity. The measurement of a hold or compartment generally obtained by utilizing all the spaces in the hold, including that space between the beams and out to the shell plating. Indicates spaces which would be filled by a grain cargo.

2. Bale Cubic Capacity. This measurement is usually taken from under the overhead beams and inside the side battens (or sweat boards). In general, it indicates the space available for bale or other package cargo and usually is less than the grain cubic for the same space.

(f) Terms used for measuring cargo or determining freight rates, space utilization, etc. are also of interest to the carrier and shipper alike.

1. Weight Ton. When used in determining freight rate or wharfage due on cargo, it is generally considered to be a ton of 2,000 lbs.

2. Measurement Ton. A unit of 40 cubic feet of cargo is said to represent one ton of cargo for freight or wharfage rates. This computation is used on lightweight cargo of which 40 cubic feet weighs less than 2,000 (2,240) lbs. and is simply a method of equalizing cargo charges between light and dense (or heavy) cargoes.

3. Revenue Ton. Most tariffs (or shipping rate schedules) are written to permit the freight rate to be charged "weight or measure - whichever is higher." This arbitrary figure is often referred to as a revenue ton.

4. Stowage Factor. The number of cubic feet one ton (2,240 lbs.) of a particular cargo will occupy when properly stowed and dunnaged in the ship's hold.

5. Broken Stowage. The space not occupied between bales, cartons or packages or in the way of pillars, beams, frames, stringers, etc. Good and bad stevedore practices in stowing cargo can have considerable influence on this factor.

(g) Two other tonnage references for merchant shipping (which are not in common usage except by classification societies).

1. Power Tonnage. The sum of the gross tonnage and indicated horsepower of the engines. Sometimes used as a rough comparison between ships and as a basis of salary schedule for

Merchant Marine Officers.

2. **Equipment Tonnage.** That tonnage which takes into consideration certain exposed surfaces, above and below the water line and used primarily to determine the size of anchors, chains, hawsers, etc..

Chapter II Operation of Motorboats

Section 1. Registration, Documentation and Licensing of Motorboats

(a) Classes of Motorboats. Motorboats subject to the provisions of these rules and regulations shall be divided into four classes as follows:

- | | |
|----------|---|
| Class A. | Less than sixteen feet in length. |
| Class 1. | Sixteen feet or over and less than twenty-six feet in length. |
| Class 2. | Twenty-six feet or over and less than forty feet in length. |
| Class 3. | Forty feet or over, but not more than sixty-five feet, in length. |

(b) Registration. Every motorboat owned or operated in the Republic of Palau by a citizen of the Republic of Palau or by a corporation wholly owned by a citizen of the Republic of Palau shall be registered with the Board. Every motorboat of Classes 1,2 and 3, owned by a non-citizen of the Republic of Palau, must be licensed by the Board in order to operate in the Republic of Palau.

(c) Registry Number to be painted on the bow. The registry number awarded to a motorboat shall be painted or attached to each bow of the vessel in such manner and color as to be distinctly visible and legible. The number shall not be less than 3" in size. In addition, the number shall be painted in a conspicuous manner on the deck or on the top of a deck house, or other such structure where it would be visible to aircraft, in letters and figures not less than 6 inches high. The original registry number awarded to a motorboat will only be changed based on the following:

- a. Change of ownership of the motorboat
- b. Change in type of propulsion
- c. Changes resulting from a major alteration or modification to the hull

In addition, the registry number (see Table I) will display the following information:

- a. Initial of the state in which the motorboat is registered
- b. Number assigned to the motorboat
- c. Date of initial registration (Month, year)

- a. Date of transaction
- b. Proof of such transaction
- c. Name of the new owner or purchaser

To register a newly acquired motorboat, an applicant must provide the following information to the Board:

- a. Proof of ownership
- b. Proof of sale, transfer of ownership, etc. if a motorboat changed ownership due to sale, transfer of ownership, etc..

(f) Inspection of Motorboats. Every motorboat operated inter-island or inter-state engaged in trade shall be inspected at least once every year by the Board of Marine Inspectors to determine whether the structure of such vessel is seaworthy and suitable for the service in which it is to be employed, has suitable accommodations for the passengers and crews, and is equipped with safety to life, and that all the requirements in regard to life saving and fire fighting equipment and other safety equipment the Board may direct the motorboat to put in motion are in compliance with these regulations. The Board may adopt any other suitable means to test the boat's efficiency and that of its equipment. At least once every year, the Board shall carefully inspect, on dry-dock, the underwater portion of each motorboat subject to inspection to determine whether such vessel is in a condition suitable for the service in which it is to be employed. Whenever the Board finds on board on any motorboat subject to these regulations as part of the required equipment thereof, any equipment, apparatus, or appliance, not conforming to these regulations, the Board shall require the same to be placed in proper condition by the owner or operator of such motorboat. In any foregoing cases, the Board, by whom or under whose supervision the said motorboat is being inspected, shall have power to enforce the foregoing requirements by revoking the Certificate of Inspection of said motorboat and by refusing to issue a new certificate to the said motorboat until said requirements shall have been fully complied with or until such action of the Board shall have been reversed, modified, or set aside by the President of the Republic of Palau on proper appeal by the owner or operator of said motorboat. Upon such appeal, duly made, the President of the Republic of Palau shall have the power to affirm, modify, or set aside such action by the Board.

(g) Certificate of Inspection Required. Every motorboat shall be subjected to inspection and shall be issued, upon the completion of the inspection, a Certificate of Inspection valid for a period of one year by the Board attesting that the vessel is fit and properly equipped for the service in which it is to be employed. No motorboat subject to inspection and certification shall be operated without a valid certificate of inspection on board.

(h) Reinspections. Every motorboat shall be reinspected periodically, at such times as the Chairman of the Board may direct, to assure that the terms of the Certificate of Inspection are being complied with.

(i) Posting of Certificate of Inspection. On motorboats of over 25 gross tons, the Certificate of Inspection shall be framed under glass and posted in a conspicuous place on board where it will be most likely to be observed. On motorboats under 25 gross tons, where the framing of the

certificate under glass would be impractical, the Certificate of Inspection shall be kept on board to be shown upon demand.

(j) Penalty for Operating Without Certificate of Inspection. Any motorboat subject to inspection found operating without a valid Certificate of Inspection aboard shall be subject to a penalty of \$500.00 and may be seized and proceeded against by way of libel in any state which said motorboat may be found.

(k) License to Engage in Trade. Every motorboat engaged in trade, carrying passengers or freight for hire, shall be licensed for such trade by the Board. However, no vessel shall be licensed until it has been inspected and has been issued a valid Certificate of Inspection.

Section 2. Safety Equipments and Measures

(a) Lights. Every motorboat in all weather from sunset to sunrise shall carry and exhibit the following lights when under way, and during such time no other lights which may be mistaken for those prescribed shall be exhibited:

(1) Every motorboat of class A and 1 shall carry the following lights:

First. A bright white aft to show all around the horizon.

Second. A combined lantern in the fore part of the vessel and lower than the white light aft, showing green to starboard and red to port, so fixed as to throw the light from right ahead to two points abaft the beam on their respective sides.

(2) Every motorboat of classes 2 and 3 shall carry the following lights:

First. A bright white light in the fore part of the vessel as near the stem as practicable, so constructed as to show an unbroken light over an arc of the horizon of twenty points of the compass, so fixed as to throw the light ten points on each side of the vessel; namely, from right ahead to two points abaft the beam on either side.

Second. A bright white light aft to show all around the horizon and higher than the white light forward.

Third. On the starboard side a green light so constructed as to show an unbroken light over an arc of the horizon of ten points of the compass, so fixed as to throw the light from right ahead to two points abaft the beam on the starboard side. On the port side a red light so constructed as to show an unbroken light over an arc of the horizon of ten points of the compass, so fixed as to throw the light from right ahead to two points abaft the beam on the port side. The said lights shall be fitted with inboard screens of sufficient height so set as to prevent these lights from being seen across the bow.

(3) Motorboats of classes 2 and 3, when propelled by sail and machinery, or by sail alone,

shall carry the colored side lights, suitably screened, but not the white light prescribed by this section; Provided, however, that motorboats of all classes, when so propelled, shall carry, ready at hand, a lantern or flashlight showing a white light which shall be exhibited in sufficient time to avert collision; Provided, further, that motorboats of classes A and 1, when so propelled, shall not be required to carry the combined lantern prescribed by Sub-section (a) of this Section.

(4) Every white light prescribed by this Section shall be of such character as to be visible at a distance of at least two miles. Every colored light prescribed by this Section shall be of such character as to be visible at a distance of at least one mile. The word "visible" in this Regulations, when applied to lights, shall mean visible on a dark night with a clear atmosphere.

(b) Whistles. Every motorboat of class 1, 2 or 3 shall be provided with an efficient whistle or other sound-producing mechanical appliance.

(c) Bells. Every motorboat of class 2 or 3 shall be provided with an efficient bell.

(d) Lifesaving Appliances. Every motorboat subject to any of the provisions of these regulations shall carry at least one good life preserver, life ring buoy, or other device of the sort prescribed by the Board for each person on board, so placed as to be readily accessible: Provided, that every such motorboat carrying passengers for hire shall carry at least one good life preserver for each person on board.

(e) Fire Extinguishers. Every motorboat shall be provided with fire extinguishers, capable of promptly and effectually extinguishing burning oil and gasoline. Motorboats of classes A and 1 shall be provided with one such fire extinguisher and motorboats of classes 2 and 3 shall be provided with two such fire extinguishers. These fire extinguishers shall be at kept all times in condition for immediate and effective use, one of which shall be placed near the entrance to the machinery space. The size of the fire extinguisher required herein shall be as follows: 2-1/2 gallon foam, 15 pounds CO₂, or 10 pounds dry chemical.

(f) Flame Arrestors. Every motorboat shall have the carburetor or carburetors of every engine therein (except outboard motors) using gasoline for fuel equipped with such efficient flame arrestor, backfire trap, or other similar device as approved by the Board.

(g) Ventilation of Bilges. Every such motorboat, except open boats, using as fuel any liquid of volatile nature shall be provided with means for properly and efficiently ventilating the bilges of the engines and fuel tank compartments so as to remove any explosive or inflammable gases.

(h) Life Floats or Buoyant Apparatus. Every motorboat engaged in trade, operated inter-state or privately owned shall carry a life buoy of an approved type equipped with 15 fathoms of 3/4 inch line attached. Such life buoy shall be of high visible color. Every motorboat engaged in trade or operated inter-state shall carry suitable life raft or other buoyant apparatus of high visible color equipped with a sea-painter, paddle and adequate sea rations and fresh water.

(i) Distress Signals. Every motorboat operated inter-state or engaged in trade shall be equipped with a waterproof container containing the following:

- (1) Red Hand Distress Flares - 4 each
- (2) High Altitude Parachute or Star Rocket Signals - 2 each
- (3) Self-Activating Smoke Signal - 1 each
- (4) Self-Igniting Lamp or Waterproof Flashlight - 1 each

(j) Tillers. Every motorboat operated inter-state or engaged in trade shall be equipped with a spare tiller or other auxiliary means of steering.

(k) Bulkheads. Every motorboat operated inter-state or engaged in trade in which transverse bulkheads are installed shall maintain such bulkheads in a watertight condition.

(l) Deck Motorboats. Every motorboat operated inter-state or engaged in trade which is decked over shall provide means of closing and making properly watertight all openings in such deck.

(m) Number of Person. Every motorboat (open or decked) operated outside of harbors or reefs shall limit the number of persons carried to one for each 10 square feet unobstructed deck space or 18 lineal inches of seating space, whichever number is the lesser. All seating spaces shall be measured in multiples of 18 lineal inches, fractions of such spaces shall be discounted.

(n) Equipment to be Numbered. The name or registry number of every motorboat registered in the Republic of Palau shall be plainly marked or painted in letters and numbers not less than 1/2 inches high on all life saving and fire fighting equipment. All other equipment which is likely to float in the event of disaster, such as hatch covers, lockers, benches, etc., shall be similarly marked or painted.

(o) Licensed - Operator Passenger Motorboat. No such motorboat, while carrying passengers for hire, shall be operated or navigated except on charge of a person duly licensed for such service. Whenever any person applies to be licensed as operator of any motorboat carrying passengers for hire, the Board shall make diligent inquiry as to his character and shall carefully examine the applicant orally as well as the proofs which he presents in support of his claim. If they are satisfied that his capacity, experience, habits of life, and character are such as to warrant the belief that he can safely be entrusted with the duties and responsibilities of the station for which he makes application, they shall grant him a license authorizing him to discharge such duties on any such motorboat carrying passengers for hire for the term of one year. Such license shall be subject to suspension or revocation on evidence of negligence, incompetence, misconduct, or intemperance.

(p) Freeboard of Open Boats. No open type motorboat (boats without watertight decks) shall be operated outside of reefs or harbors with less than 12 inches (mean) free board, unless specific permission to do so is granted by the Board.

CHAPTER III OPERATION OF MOTOR VESSELS

Section 1. Classification and Applicability

(a) Classification. Construction of these Regulations shall be governed by the following classification of motor vessels:

1. Class I. Any vessel over 65 feet and less than 125 feet in length.
2. Class II. Any vessel 125 feet or over and less than 225 feet in length.
3. Class III. Any vessel 225 feet or over and less than 325 feet in length.
4. Class IV. Any vessel 325 feet in length and less than 425 feet in length.
5. Class V. Any vessel 425 feet in length and over.

(b) Applicability of Regulations. The Regulations requiring life saving equipment and fire fighting equipment on vessels shall apply to any uncertificated barge or boat carrying passengers which is operated with a vessel.

Section 2. Safety Equipments and Measures

(a) Navigation Lights

1. When carried and exhibited. Every vessel when propelled by engine alone in all weathers from sunset to sunrise shall carry and exhibit the following lights when under way, and during such time no other lights which may be mistaken for those prescribed shall be exhibited. No penalty is incurred by vessels for a failure to carry lights between the hours of sunrise and sunset.

2. Class 1. Every motor vessel of Class 1 shall carry the following lights:

- a. A bright white light aft to show all around the horizon.
- b. A combined lantern in the fore part of the vessel and lower than the white light aft, showing green to starboard and red to port, so fixed as to throw the light from right ahead to 2 points abaft beam on their respective sides.

3. Class 2, 3, 4, and 5. Every motor vessel of Classes 2, 3, 4, and 5 shall carry the following lights:

- a. A bright white light in the fore part of the vessel as near the stem as practicable, so constructed as to show an unbroken light over an arc of the horizon of 20 points of the compass, so fixed as to throw the light 10 points on each side of the vessel; namely, from right ahead to 2 points abaft the beam on either side.
- b. A bright white light aft to show all around the horizon and higher than the white

light forward.

c. On the starboard side a green light so constructed as to show an unbroken light over an arc of the horizon of 10 points of the compass, so fixed as to throw the light from right ahead to 2 points abaft the beam on the starboard side. On the port side a red light so constructed as to show an unbroken light over an arc of the horizon of 10 points of the compass, so fixed as to throw the light from right ahead to 2 points abaft the beam on the port side. The said side lights shall be fitted with inboard screens of sufficient length and height or shall be mounted on cabin sides and so set as to prevent these lights from being seen across the bow.

4. Under sail and engine. All vessels propelled by sail and engine or by sail alone shall carry and exhibit the following lights:

(a) Motor vessels of Class 1 when propelled by sail and engine or by sail alone shall carry the white light prescribed by Section 2(a)(2)(a) of this chapter, but not the combined lantern prescribed by 2(a)(2)(b).

(b) Motor vessels of Classes 2, 3, 4, and 5 when propelled by sail and engine or by sail alone shall carry the colored side lights prescribed by Section 2(a)(3)(c) of this chapter, but not the white lights prescribed by Section 2(a)(3)(a) and (b).

(c) In addition, motor vessels of all classes when so propelled shall carry ready at hand a lantern or flashlight showing a white light which shall be exhibited in sufficient time to avert collision.

5. Visibility. Every white light prescribed by these Regulations shall be of a character as to be visible at a distance of at least two miles. Every colored light prescribed by these Regulations shall be of such character as to be visible at a distance of at least one mile. The word "visible" when applied to lights shall mean visible on a dark night with clear atmosphere.

6. Anchor lights. Vessels when at anchor shall carry forward, where it can best be seen, but at a height not exceeding twenty feet above the hull, a white light, in a lantern so constructed as to show a clear, uniform and unbroken light visible all around the horizon at a distance of at least one mile.

7. A vessel aground in or out near fairway shall carry the above light or lights.

(b) Whistles or other sound-producing devices.

Where required. Vessels shall be provided with an efficient whistle, horn, or other sound-producing mechanical device as follows:

(a) Class 1. Mouth, hand or power-operated, capable of producing a blast of 2

seconds' or more duration and audible for a distance of at least one-half mile.

(b) Class 2. Hand or power-operated, capable of producing a blast of 2 seconds or more duration and audible for a distance of at least one mile.

(c) Class 3,4, and 5. Power-operated, capable of producing a blast of 2 seconds or more duration and audible for a distance of at least one mile.

(d) Commercial fishing vessels may carry any device specified in this section.

(c) Fog Bell.

Where Required. Vessels shall be provided with a bell for sounding bell signals, according to classes as follows:

(a) Class 1. None

(b) Class 2, 3, 4, and 5. One such bell.

(d) Life preservers or Personal Floatation Device (PFD) and other lifesaving devices.

1. Life preservers.

(a) All vessels shall carry for every person on board a life jacket of an approved type and in addition, unless these life jackets can be adopted for use by children, a sufficient number of life jackets suitable for use by children. These life jackets of personal floatation devices shall be stowed in a conspicuous place on deck.

(b) In addition to the above, there shall be carried on passenger vessels life jacket for 5 percent of the total number of persons on board. These life jackets shall be stowed in a conspicuous place on deck.

(c) A life jacket shall not be approved unless it meets the following requirements:

(1) It shall be constructed with proper workmanship and materials.

(2) It shall be capable of supporting in fresh water for 24 hours 16.5 pound (or 7.5 kilograms) of iron.

(3) It shall be so constructed as to eliminate in so far as possible all risk of its being put on incorrectly, except that it shall be capable of being worn inside out.

(4) It shall provide support to the head so that the face of an unconscious person is held above the water with the body inclined backwards from its vertical position.

- (5) It shall be capable of turning the body, on entering the water, to a safe floating position with the body inclined backwards from its vertical position.
- (6) It shall not be adversely affected by oil or oil products.
- (7) It shall be of a high visible color.
- (8) It shall be fitted with an approved whistle firmly secured by a cord.
- (9) Life jackets shall be so placed as to be readily accessible and their position shall be plainly indicated.
- (10) All personal floatation devices (PFD's) of Types I, II, III and IV are accepted.

2. Life rafts and life boats.

- (a) The dimensions of life boats and the number of persons which it is permitted to carry shall be marked on it in a clear permanent characters. The name and port of registry of the vessel to which the life boat belongs shall be painted on each side of the bow.
- (b) Each self-inflatable or rigid life raft and/or life boat shall carry at all times such equipment as may be required by the Board. Equipment prescribed by the Board shall be consistent with the pertinent regulations of the international Convention for the safety of Life at Sea, 1960 (SOLAS 60).
- (c) Each self-inflatable or rigid life raft and/or life boat shall be of an approved type and at all times carry the normal equipment as prescribed in Regulation 17, equipment of inflatable and rigid life rafts, of the International Convention for the Safety of Life at Sea, 1960. Life boats shall carry such equipment as may be required by the Board consistent with the provisions of Regulation 11 of the International Convention for the Safety of Life at Sea, 1960.
- (d) Each self-inflatable or rigid life rafts shall be marked in the same manner as prescribed in Section 2(d)1(a) above.

3. Life buoys.

Where Carried. All vessels shall carry life buoys of an approved type and in such numbers as may be prescribed by the Board. Life buoys shall be of solid cork or equivalent material and capable of supporting in fresh water for 24 hours at least 32 pounds (or 14.5 kilograms) of iron. Life buoys shall be of a high visible color and not adversely affected by oil or oil products.

- (a) Each life buoy shall be marked in block letters with the name and port of registry of the vessel upon which it is carried.
- (b) Life buoys filled with rushings, cork shavings, granulated cork, any other loose granulated material, or whose buoyancy depends upon air compartments which require to be inflated are prohibited.
- (c) Life buoys made of plastic or other synthetic compounds shall be capable of retaining their buoyant properties and durability in contact with sea water or oil products, or under variations of temperature or climatic changes prevailing in open sea voyages.
- (d) Life buoys shall be fitted with brackets securely seized. At least one life buoy on each side of the vessel shall be fitted with a buoyant life line of at least 15 fathoms (or 27.5 meters) in length. There shall be one life buoy attached with one Self-Activating Smoke Signal and one Self-Igniting Lamp and a 15-fathoms (or 27.5 meters) of life line installed on each side of the bridge or the pilot house of a motor vessel.
- (e) In passenger ships not less than one-half of the total number of life buoys, and in no case less than six, and in cargo vessels at least one-half of the total number of life buoys, shall be provided with efficient Self-Igniting Lights.
- (f) Life buoys shall be capable of being rapidly cast loose and shall not be permanently secured in anyway.

4. Distress Signals.

Where Carried. Every motor vessels shall carry on board the following international distress signals in addition to the required safety equipment:

- (1) Red Hand Distress Flares - 12 each
- (2) High Altitude Parachute Signals - 2 each
- (3) High Altitude Star Rocket Signals - 2 each
- (4) Self-Activating Smoke Signals - 3 each
- (5) Self-Igniting Lamp - 3 each
- (6) Emergency Position-Indicating Radio Beacon (EPIRB) - 1 each
- (7) International Code Signal Flags - 1 set

The Self-Igniting Lamps required above shall be such that they cannot be extinguished by water. They shall be capable of burning for not less than 45 minutes and shall have a luminosity of not less 3.5 lumens. They shall be kept near the life buoys to which they belong with the necessary means of attachment. Self-Igniting Lamps used in tankers shall be of an approved electric battery type.

5. Stowage. Lifesaving devices shall be so placed as to be readily accessible.

e. Fire fighting equipment

1. Number and type required. After the effective date of these regulations, the minimum number and type of approved portable fire extinguishers required on vessels not carrying passengers shall be as set forth in Table II.

Table II

Class of Vessel	Number of Extinguishers	Boats fitted with fixed CO2 system
1	2	0
2	2	1
3	3	2
4	4	3
5	4	3

*To secure this reduction, the forced carbon-dioxide system fitted must be of a type approved by, and installed and maintained with the approval of the Board.

2. The extinguishing units required by Table II shall be any of the following approved types and capacities: 1-1/4 gallon foam; 4-pound carbon-dioxide; or such other types and capacities as may be approved by the Board. On vessel of Classes 3, 4, and 5, the approved extinguishers required may, in the case of the foam and carbon-dioxide type, be of larger capacity, i.e., 2-1/2 gallon foam or 15 pound carbon-dioxide and provided in the ratio of one larger unit or two of the units required by Table II.

3. All vessels carrying passengers shall be provided with the minimum number and type of fire extinguishers (table II) which shall be at least double the capacity as provided on Section 2(e)(1)(a) of this Chapter.

4. Fire pumps. All Classes 3, 4, and 5 vessels shall be equipped with one or more power-driven pumps with one or more outlets on a weather deck and canvas-covered rubber hose of sufficient length to enable the nozzle of the hose to reach any part of the vessel; Provided, however, that Class 3 vessels, if the Board so approves, may have in lieu of the power-driven pump a hand-operated pump capable of pumping a minimum of twenty five gallons per minute.

5. Fire axes and buckets. All Classes 3, 4, and 5 vessels shall be equipped with fire axes and fire buckets which shall be used solely for fire-fighting purposes. Such fire ax and fire bucket shall be in such position as may be determined by the Board. Both axes and buckets shall be painted red.

6. Sand buckets. All vessels propelled by internal combustion engine using gasoline as fuel shall carry, in addition to the fighting equipment aforementioned, two fire buckets in the engine room. Said buckets shall be filled with dry sand at all times.

7. Location and Condition. Fire extinguishers shall be kept in working condition at all times for immediate and effective use and shall be placed so as to be readily accessible.

f. Ventilation.

Where required. All vessels which are constructed or decked over after the effective date of these Regulations which use gasoline or other liquid fuel having flash point of less than 100° F shall be provided with ventilation as follows:

(a) At least two ventilators fitted with cowls or their equivalent for the purpose of properly and efficiently ventilating the bilges of every engine and fuel-tank compartment in order to remove any inflammable or explosive gases.

(b) Vessels constructed so that the greater portion of bilges under the engine and fuel tanks are open and exposed to the natural atmosphere at all times are not required to be fitted with ventilators.

g. Prohibition. It shall be unlawful to use compressed gases, gasoline, benzene or similar products of highly volatile nature for cooking, heating, or lighting purposes in any vessels when carrying passenger.

Section 3. Safety Equipment Requirements for Fishing Vessels. Fishing vessel of fifteen (15) gross tons and over engaged in commercial fishing or marine biological scientific research work must meet safety equipment requirements for Class II Motor Vessel.

**CHAPTER IV
FEE SCHEDULE**

Section 1. Inspection, Registration and Documentation Fees

(a) Inspection and Registration/Documentation of Motorboats

<u>Inspection/Certification</u>	<u>Registration/Documentation</u>
Class A (L + B + D) x (\$.20/ft.)	\$ 5.00
Class I (L + B + D) x (\$.40/ft.)	\$ 5.00
Class II (L + B + D) x (\$.60/ft.)	\$10.00
Class III (L + B + D) x (\$.80/ft.)	\$15.00

(b) Inspection and Registration/Documentation of Motor Vessels

1. Inspection Fee

- a. Class I (L+B + D)x(\$1.00/ft.) per hour and fraction thereof
- b. Class II (L + B + D)x(\$1.50/ft.) per hour and fraction thereof
- c. Class III (L + B + D)x(\$2.00/ft.) per hour and fraction thereof
- d. Class IV (L + B + D)x(\$2.50/ft.) per hour and fraction thereof
- e. Class V (L + B + D)x(\$3.00/ft.) per hour and fraction thereof

2. Certification fee

\$1.00 per Gross Registered Tonnage (GRT)

3. Registration/Documentation Fee

\$1.00 per Gross Registered Tonnage (GRT).

4. Deregistration Fee

\$0.50 per Deadweight Tonnage (DWT). In cases where Deadweight Tonnage (DWT) is not available, Gross Registered Tonnage (GRT) shall be used in lieu of DWT.

Section 2. License Fees

(a) Motorboat Operator License

- Class A: \$ 2.00
- Class I: \$ 3.00
- Class II: \$ 6.00
- Class III: \$10.00

(b) Merchant Marine Officer License

CLASS V

Type A: Master/Harbor Pilot Unlimited Tonnage/Unrestricted Ocean	\$100.00
: Chief Engineer Unlimited HP/Motor, Steam or Nuclear Powered	\$100.00
Type B: Master/Harbor Pilot Unlimited Tonnage/Restricted Ocean	\$80.00
: Chief Engineer Unlimited Horsepower/Motor or Nuclear Powered	\$80.00
Type C: Master/Harbor Pilot Limited Tonnage/Unrestricted Ocean	\$80.00
: Chief Engineer Limited Horsepower/Motor	\$60.00
Type D: Master/Harbor Pilot Limited Tonnage/Restricted Ocean	\$60.00
: Chief Engineer Limited Horsepower/Nuclear Powered	\$60.00

CLASS IV

Type A: First Officer	Unlimited Tonnage/Unrestricted Ocean	\$80.00
: 1st Asst. Engr.	Unlimited HP/Motor, Steam or Nuclear Powered	\$80.00
Type B: First Officer	Unlimited Tonnage/Restricted Ocean	\$60.00
: 1st Asst. Engr.	Unlimited Horsepower/Motor or Nuclear Powered	\$60.00
Type C: First Officer	Limited Tonnage/Unrestricted Ocean	\$60.00
: 1st Asst. Engr.	Limited Horsepower/Motor	\$40.00
Type D: First Officer	Limited Tonnage/Restricted Ocean	\$40.00
: 1st Asst. Engr.	Limited Horsepower/Nuclear Powered	\$40.00

CLASS III

Type A: Second Officer	Unlimited Tonnage/Unrestricted Ocean	\$60.00
: 2nd Asst. Engr.	Unlimited HP/Motor, Steam or Nuclear Powered	\$60.00
Type B: Second Officer	Unlimited Tonnage/Restricted Ocean	\$40.00
: 2nd Asst. Engr.	Unlimited Horsepower/Motor or Nuclear Powered	\$40.00
Type C: Second Officer	Limited Tonnage/Unrestricted Ocean	\$40.00
: 2nd Asst. Engr.	Limited Horsepower/Motor	\$30.00
Type D: Second Officer	Limited Tonnage/Restricted Ocean	\$30.00
: 2nd Asst. Engr.	Limited Horsepower/Nuclear Powered	\$30.00

CLASS II

Type A: Third Officer	Unlimited Tonnage/Unrestricted Ocean	\$40.00
: 3rd Asst. Engr.	Unlimited HP/Motor, Steam or Nuclear Powered	\$40.00
Type B: Third Officer	Unlimited Tonnage/Restricted Ocean	\$30.00
: 3rd Asst. Engr.	Unlimited Horsepower/Motor or Nuclear Powered	\$30.00
Type C: Third Officer	Limited Tonnage/Unrestricted Ocean	\$30.00
: 3rd Asst. Engr.	Limited Horsepower/Motor	\$25.00
Type D: Third Officer	Limited Tonnage/Restricted Ocean	\$25.00
: 3rd Asst. Engr.	Limited Horsepower/Nuclear Powered	\$25.00

CLASS I

Type A: JR. Third Officer	Unlimited Tonnage/Unrestricted Ocean	\$30.00
: 4th Asst. Engr.	Unlimited HP/Motor, Steam or Nuclear Powered	\$30.00
Type B: JR. Third Officer	Unlimited Tonnage/Restricted Ocean	\$25.00
: 4th Asst. Engr.	Unlimited Horsepower/Motor or Nuclear Powered	\$25.00
Type C: JR. Third Officer	Limited Tonnage/Unrestricted Ocean	\$25.00
: 4th Asst. Engr.	Limited Horsepower/Motor	\$25.00
Type D: JR. Third Officer	Limited Tonnage/Restricted Ocean	\$20.00
: 4th Asst. Engr.	Limited Horsepower/Nuclear Powered	\$20.00

CHAPTER V VIOLATIONS AND PENALTIES

PROMOTE BOATING SAFETY

The Board of Marine Inspectors (BMI) request your cooperation in promoting the safety of life and property on the nation's waterways. By observing the prescribed laws and regulations and by following safe boating practices, you can help reduce the number of lives lost or injuries sustained and prevent damage to property.

PURPOSE OF BOARDING

The Board of Marine Inspectors (BMI) is the primary marine safety law enforcement agency of the Republic of Palau. Under statutory authority BMI members may at any time go onboard vessels subject to the jurisdiction of the Republic of Palau and make inquiries, examine ship's papers, and inspect examine and search the vessel for the purpose of detection, prevention and suppression of violation of Republic of Palau Laws. The BMI is also authorized to make seizures and arrests and to use all necessary force to compel compliance while conducting boardings.

The BMI enforces regulations related to maritime safety, marine inspections and surveys, vessel documentation and registration, maritime personnel certification and licensing, International Maritime Organization's (IMO) Regulations and other various IMO related International conventions' standards, such as Safety of Life at Sea (SOLAS), International Load Line Convention (ILLC), Standard of training and Certification of Watchkeeping for Sea Farers (STCW), etc.. All these are done through an active boarding policy in which boarding teams follow established procedures for boarding Republic of Palau and foreign vessels subject to Republic of Palau jurisdiction to conduct inspections.

Boaters who have questions, comments or feedback concerning BMI law enforcement boardings may call the BMI Office, (680) 488-5789.

Section 1. Violations

(a) Negligent Operation. No person shall operate any motorboat in a reckless or negligent manner so as to endanger the life or property of any person. Example of actions that may constitute negligent or grossly negligent operation under certain circumstances are:

- a. Operating in a swimming area.
- b. Operating while under the influence of alcohol or drugs recognizable by erratic operation.
- c. Excessive speed in the vicinity of other boats or in dangerous waters.
- d. Hazardous water skiing or jet skiing practices.
- e. Bow, seatback, gunwale or transom riding.

(b) Hazardous Condition Observed. Any member of the Board of Marine Inspectors or other

governmental marine law enforcement agency of the Republic of Palau who observes a boat operating in an unsafe condition, specifically defined by laws or regulations, and determines that a hazardous condition exists may direct the operator to take immediate steps to correct the condition including returning to mooring. The specific unsafe conditions for which termination may be imposed are:

- a. Insufficient number of Personal Floatation Devices (PFD's).
- b. Insufficient firefighting devices.
- c. Overloaded condition.
- d. Improper navigational light display.
- e. Fuel leakage.
- f. Fuel in bilges.
- g. Improper ventilation.
- h. Improper backfire flame control.
- i. Manifestly unsafe voyage.

(c) Refusal to comply. An operator who refuses to comply with the order to terminate unsafe use of the boat can be cited for failure to comply with the directions of a BMI boarding officer or a boarding officer of any other governmental marine law enforcement agency of the Republic of Palau as well as for the specific statutory or regulatory violations or provisions which were the basis for the termination order.

(d) Citation. The members of the Board of Marine Inspectors or other governmental marine law enforcement agency of the Republic of Palau shall have the power to issue citations for violation of 7PNC, subchapter 1 and 2 or regulations issued pursuant hereto.

Section 2. Authority to Arrest for Negligent Operation. Any member of the Board of Marine Inspectors or other governmental marine law enforcement agency of the Republic of Palau authorized to enforce the navigation laws shall have power and authority to swear out process and to arrest and take into custody, with or without process, any person who may operate any motorboat in a reckless or negligent manner so as to endanger the life or property of any person; Provided, that no person shall be arrested without process for any offense not committed in the presence of someone of the aforesaid officials; Provided, further, that whenever an arrest is made under the provisions of these Regulations, the person so arrested shall be brought forth before a judge or the court of the Republic of Palau for examination of the offense alleged against him, and the judge or court shall proceed in respect thereto as authorized by law in cases of crimes against the Republic of Palau.

Section 3. Penalties.

(a) Civil Penalty. A civil penalty up to \$500.00 may be imposed by the Board of Marine Inspectors for:

- a. Failure to comply with numbering requirements.
- b. Failure to comply with registration requirements.

- c. Failure to comply with capacity plate requirements.
- d. Failure to comply with inspection requirements.
- e. Failure to comply with safety equipment requirements

(b) Penalty for Negligent Operation. Any person who shall operate any motorboat in a reckless or negligent manner so as to endanger life or property of any person shall be deemed guilty of a misdemeanor and upon conviction thereof shall be punished by a fine not to exceed \$2,000.00, or by an imprisonment not to exceed one year, or both at the discretion of the court.

Section 4. Notice of Violation.

NOTICE OF VIOLATION
IMPORTANT NOTICE TO OWNER OR OPERATOR
CORRECT DISCREPANCY AS SOON AS POSSIBLE

Continued operation without the required safety equipment may be an invitation to a serious accident. It may also result in additional penalties for repeated violation of ROP Law.

PROCEDURES

A copy of this form will be given to the Chairman of the Board of Marine Inspectors who will review all applicable information to determine if civil penalty action should be commenced. You will be notified of the results of this preliminary investigation.

Should civil penalty action be considered appropriate for the violation(s) noted, you will be notified in writing by the Chairman of the charges made against you, the maximum penalty which may be assessed, the procedures used in assessing and collecting the penalty, the amount of penalty appearing appropriate, and of your rights in the proceeding. Within 30 days of receipt of this notification, you may request a hearing or provide in writing information or material in lieu of a hearing that denies, explains, or mitigates the violation. If you submit information in lieu of a hearing, the information will be used in the determination of whether to assess a penalty, close the case without action, remit or mitigate the penalty, or take other action under the applicable statute.

If, after you have been provided a notice and an opportunity to a hearing, a civil penalty is assessed, you will be notified of the amount of penalty assessed. You may appeal the assessment to the Chairman of the Board within 30 days of receipt or the Board may begin proceedings to collect the penalty.

For most violations, the maximum civil penalty is not more than \$1,000.00 for each violation. The maximum criminal penalty for violations is not more than \$5,000.00 or one year imprisonment or both for each willful or grossly negligent violation. However, the civil and criminal penalties available for cases involving pollution prevention violations are substantially higher.

Chapter VI
Rules For Preventing Collision At Sea

Part I. Inland Rules of the Road

Section 1. General

Rule 1 Application

(a) These Rules apply to all vessels upon the territorial waters of the Republic of Palau, and to all vessels of the Republic of Palau on territorial waters of other nations to the extent that there is no conflict with laws of other nations . .

(b) (i) These Rules constitute special rules made by an appropriate authority within the meaning of Rule 1(b) of the International Regulations.

(ii) All vessels complying with the construction and equipment requirements of the International Regulations are considered to be in compliance with these Rules.

(c) Nothing in these Rules shall interfere with the operation of any special rules made with respect to additional station or signal lights and shapes or whistle signals for ships of war and vessels proceeding under convoy, or by the Chairman with respect to additional station or signal lights and shapes for fishing vessels engaged in fishing as a fleet. These additional station or signal lights and shapes or whistle signal shall, so far as possible, be such that they cannot be mistaken for any light, shape, or signal authorized elsewhere under these Rules. Notice of such special rules shall be promulgated by the Board of Marine Inspectors and, after the effective date specified in such notice, they shall have effect as if they were a part of these Rules.

(d) Traffic separation schemes may be established for the purposes of these Rules. Vessel traffic service regulations may be in effect in certain areas.

(e) Whenever the Chairman determines that a vessel or class of vessels of special construction or purpose cannot comply fully with the provisions of any of these Rules with respect to the number, position, range, or arc of visibility of lights or shapes, as well as to the disposition and characteristics of sound-signalling appliances, the vessel shall comply with such other provisions in regard to the number, position, range, or arc of visibility of lights or shapes, as well as to the disposition and characteristics of sound-signalling appliances, as the Chairman shall have determined to be the closest possible compliance with these Rules. The Chairman may issue a certificate of alternative compliance for a vessel or class of vessels specifying the closest possible compliance to these Rules.

(f) The Chairman may accept a certificate of alternative compliance issued by a contracting party to the International Regulations if he determines that the alternative compliance standards of the contracting party are substantially the same as those of the Republic of Palau.

Rule 2 Responsibility

(a) Nothing in these Rules shall exonerate any vessel, or the owner, master, or crew thereof, from the consequences of any neglect to comply with these Rules or of the neglect of any precaution which may be required by the ordinary practice of seamen, or by the special circumstances of the case.

(b) In construing 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

For the purpose of these Rules and this Act, except where the context otherwise requires:

(a) The word "vessel" includes every description of water craft, including nondisplacement craft and seaplanes, used or capable of being used as a means of transportation on water;

(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 restricts maneuverability, but does not include a vessel fishing with trolling lines or other fishing apparatus which do not restrict maneuverability;

(e) The word "seaplane" includes any aircraft designed to maneuver on the water;

(f) The term "vessel not under command" means a vessel which through some exceptional circumstance is unable to maneuver as required by these Rules and is therefore unable to keep out of the way of another vessel;

(g) The term "vessel restricted in her ability to maneuver" means a vessel which from the nature of her work is restricted in her ability to maneuver as required by these Rules and is therefore unable to keep out of the way of another vessel; vessels restricted in their ability to maneuver include, but are not limited to:

- (i) a vessel engaged in laying, servicing, or picking up a navigation mark, submarine cable, or pipeline;
- (ii) a vessel engaged in dredging, surveying, or underwater operations;
- (iii) a vessel engaged in replenishment or transferring persons, provisions, or cargo while underway;
- (iv) a vessel engaged in the launching or recovery of an aircraft;
- (v) a vessel engaged in mineclearance operations; and

(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.

(h) The word "underway" means that a vessel is not at anchor, or made fast to the shore, or aground;

(i) The words "length" and "breadth" of a vessel means her length overall and greatest breadth;

(j) Vessels shall be deemed to be in sight of one another only when one can be observed visually from the other;

(k) The term "restricted visibility" means any condition in which visibility is restricted by fog, mist, heavy rainstorms, sandstorms, or any other similar causes;

(l) The word "Chairman" means the chairman of the Board of Marine Inspectors.

(m) "Inland Waters" means the navigable waters of the Republic of Palau shoreward of the navigational demarcation lines dividing the high seas from harbors, inlets and other inland waters of the Republic of Palau.

(n) "Inland Rules" or "Rules" mean the Inland Navigational Rules and the annexes thereto, which govern the conduct of vessels and specify the lights, shapes, and sound signals that apply on inland waters; and

(o) "International Regulations" means the International Regulations for Preventing Collisions at Sea, 1972, including the annexes currently in force for the Republic of Palau.

Section 2. Steering and Sailing Rules

Subsection 1. Conduct of vessels in any condition of visibility

Rule 4 Application

Rules in this subpart apply in any condition of visibility.

Rule 5 Look-out

Every vessel shall at all times maintain a proper look-out by sight and 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 concentration of fishing vessels or any other vessels;
- (iii) the maneuverability 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 draft in relation to the available depth of water.

(b) Additionally, by vessels 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 vessels 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; and
- (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 risk of 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 if 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; and

(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 collision shall, if the 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 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 or speed should be avoided.

(c) 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 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 shall slacken her speed or take all way off by stopping or reversing her means of propulsion.

(f) (i) A vessel which, 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 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 meters in length or a sailing vessel shall not impede the passage of a vessel that 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 that channel or fairway. The latter vessel shall use the danger signal prescribed in Rule 34(d) if in doubt as to the intention of the crossing vessel.

(e) (i) In a narrow channel or fairway when overtaking, the vessel intending to overtake shall indicate her intention by sounding the appropriate signal prescribed in Rule 34(c) and take steps to permit safe passing. The overtaken vessel, if in agreement, shall sound the same signal. If in doubt she shall sound the danger signal prescribed in Rule 34(d).

(ii) This Rule does not relieve the overtaking vessel of her obligation 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) Every 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 and does not relieve any vessel of her obligation under any other Rule.

(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 practicable.

(c) A vessel shall, so 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) (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 meters 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 inshore traffic zone, or to avoid immediate danger.

(e) A vessel other than a crossing vessel or a vessel joining or leaving a lane shall not normally enter a separation zone or cross a separation line except:

- (i) in cases of emergency to avoid immediate danger.
- (ii) to engage in fishing within a separation zone.

(f) A vessel navigating in areas near the terminations of traffic separation schemes shall do so with particular caution.

(g) A vessel shall so 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 meters 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 maneuver when engaged in an operation for the maintenance of safety of navigation in a traffic separation scheme is exempted from complying with this Rule to the extent necessary to carry out the operation.

(i) A vessel restricted in her ability to maneuver when engaged in an operation for the laying, servicing, or picking up of a submarine cable, within a traffic separation scheme, is exempted from complying with this Rule to the extent necessary to carry out the operation.

Subsection 2. Conduct of Vessels in sight of One Another

Rule 11 Application

Rules in this subpart apply to vessels in sight of one another.

Rule 12 Sailing Vessels

(a) When two 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 follows:

- (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; and

(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 purpose of this Rule the windward side shall be deemed to be the side apposite to that on which that mainsail is carried or, in the case of a square-rigged vessel, the side opposite to that on which the largest fore-and-aft sail is carried.

Rule 13 Overtaking

(a) Notwithstanding anything contained in Rules 4 through 18, 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 22.5 degrees 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 sternlight of that vessel but neither of her sidelights.

(c) When a vessel is in any doubt as to whether she is overtaking another, she shall assume that 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 is finally past and clear.

Rule 14 Head-on Situation

(a) Unless otherwise agreed, 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 a line or both sidelights 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 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) (i) Where one of two vessels is to keep out of the way, the other shall keep her course and speed.

(ii) The latter vessel may, however, take action to avoid collision by her maneuver alone, as soon as it becomes apparent to her 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 her 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 situation in accordance with subparagraph (a)(ii) of this Rule 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 Rules 9, 10, and 13 otherwise require:

(a) A power-driven vessel underway shall keep out of the way of:

- (i) a vessel not under command;
- (ii) a vessel restricted in her ability to maneuver;
- (iii) a vessel engaged in fishing; and
- (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 maneuver; and
- (iii) a vessel engaged in fishing.

(c) A vessel engaged in fishing when underway shall, so far as possible, keep out of the way of:

- (i) a vessel not under command; and
- (ii) a vessel restricted in her ability to maneuver.

(d) A seaplane on the water shall, in general, keep well clear of all vessels and avoid impeding their navigation. In circumstances, however, where risk of collision exists, she shall comply with the Rule of this Part.

Subsection 3. 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 conditions of restricted visibility. A power-driven vessel shall have her engines ready for immediate maneuver.

(c) Every vessel shall have due regard to the prevailing circumstances and conditions of restricted visibility when complying with Rules 4 through 10.

(d) A vessel which detects by radar alone the presence of another vessel shall determine if a close-quarters situation is developing 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 as far as possible the following shall be avoided:

- (i) an alteration of course to port for a vessel forward of the beam, other than for a vessel being overtaken; and
- (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 the minimum at which she can be kept on course. She shall if necessary take all her way off and, in any event, navigate with extreme caution until danger of collision is over.

Section 3. 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 by 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 Annex I of these Rules.

Rule 21 Definitions

- (a) "Masthead light" means a white light placed over the fore and aft centerline of the vessel showing an unbroken light over an arc of the horizon of 225 degrees and so fixed as to show the light from right ahead to 22.5 degrees abaft the beam on either side of the vessel, except that on a vessel of less than 12 meters in length the masthead light shall be placed as nearly as practicable to the fore and aft centerline of the vessel.
- (b) "Sidelights" mean 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 so fixed as to show the light from right ahead to 22.5 degrees abaft the beam on its respective side. On a vessel of less than 20 meters in length the sidelights may be combined in one lantern carried on the fore and aft centerline of the vessel, except that on a vessel of less than 12 meters in length the sidelights when combined in one lantern shall be placed as nearly as practicable to the fore and aft centerline of the vessel.
- (c) "Sternlight" means a white light placed as nearly as practicable at the stern showing an unbroken light over an arc of the horizon of 135 degrees and so fixed as to show the light 67.5 degrees from right aft on each side of the vessel.
- (d) "Towing light" means a yellow light having the same characteristics as the "sternlight" 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 degrees.

(f) "Flashing light" means a light flashing at regular intervals at a frequency of 120 flashes or more per minute.

(g) "Special flashing light" means a yellow light flashing at regular intervals at a frequency of 50 to 70 flashes per minute, placed as far forward and as nearly as practicable on the fore and aft centerline of the tow and showing an unbroken light over an arc of the horizon of not less than 180 degrees nor more than 225 degrees and so fixed as to show the light from right ahead to abeam and no more than 22.5 degrees abaft the beam on either side of the vessel.

Rule 22 Visibility of Lights

The lights prescribed in these Rules shall have an intensity as specified in Annex I to these Rules, so as to be visible at the following minimum ranges:

(a) In a vessel of 50 meters 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; and
- a special flashing light, 2 miles.

(b) In a vessel of 12 meters or more in length but less than 50 meters in length:

- a masthead light, 5 miles; except that where the length of the vessel is less than 20 meters, 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; and
- a special flashing light, 2 miles.

(c) In a vessel of less than 12 meters in length:

- a masthead light, 2 miles;
- a sidelight, 1 mile;
- a sternlight, 2 miles;
- a towing light, 2 miles;
- a white, red, green or yellow all-round light, 2 miles; and
- a special flashing light, 2 miles.

(d) In an inconspicuous, partly submerged vessel or object 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; except that a vessel of less than 20 meters in length need not exhibit this light forward of amidships but shall exhibit as far forward as is practicable.

(ii) a second masthead light abaft of and higher than the forward one; except that a vessel of less than 50 meters 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 nondisplacement mode shall, in addition to the lights prescribed in paragraph (a) of this Rule, exhibit an all-round flashing yellow light where it can best be seen.

(c) A power-driven vessel of less than 12 meters in length may, in lieu of the lights prescribed in paragraph (a) of this Rule, exhibit an all-round white light and sidelights.

Rule 24 Towing and Pushing

(a) A power-driven vessel when towing astern shall exhibit:

(i) instead of the light prescribed either in Rule 23 or 23(a)(i), 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 meters, three such lights in a vertical line;

(ii) sidelights;

(iii) a stern light;

(iv) a towing light in a vertical line above the sternlight; and

(v) when the length of the tow exceeds 200 meters, a diamond shape where it can best be seen.

(b) When 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 exhibit the lights prescribed in Rule 23.

(c) A power-driven vessel when pushing ahead or towing alongside, except as required by paragraphs (b) of this Rule, shall exhibit:

- (i) instead of the light prescribed either in Rule 23(a)(i) or 23(a)(ii), two masthead lights in a vertical line;
- (ii) sidelights; and
- (iii) two towing lights in a vertical line.

(d) A power-driven vessel to which paragraphs (a) or (c) of this Rule apply shall also comply with Rule 23(a)(ii).

(e) A vessel or object other than those referred to in paragraph (g) of this Rule being towed shall exhibit:

- (i) a sidelights;
- (ii) a sternlight; and
- (iii) when the length of the tow exceeds 200 meters, 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, and a special flashing light; and
- (ii) a vessel being towed alongside shall exhibit a sternlight and at the forward end sidelights.

(g) An inconspicuous, partly submerged vessel or object being towed shall exhibit:

- (i) if it is less than 25 meters in breadth, one all-round white light at or near each end;
- (ii) if it is 25 meters or more in breadth, four all-round white lights to mark its length and breadth;
- (iii) if it exceeds 100 meters 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 meters: Provided, That any vessels or objects being towed alongside each other shall be lighted as one vessel or object;

(iv) a diamond shape at or near the aftermost extremity of the last vessel or object being towed; and

(v) the towing vessel may direct a searchlight in the direction of the tow to indicate its presence to an approaching vessel.

(h) Where from any sufficient cause it is impracticable for a vessel or object being towed to exhibit the lights prescribed in paragraph (e) or (g) of this Rule, all possible measures shall be taken to light the vessel or object towed or at least to indicate the presence of the unlighted 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 by paragraph (a), (c) or (i) 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 assisted. The searchlight authorized by Rule 36 may be used to illuminate the tow.

Rule 25 Sailing Vessels Underway and Vessels Under Oars

(a) A sailing vessel underway shall exhibit:

- (i) sidelights; and
- (ii) a stern light.

(b) In sailing vessel of less than 20 meters 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 can best be seen.

(c) A sailing vessel underway may, in addition to the lights prescribed in paragraph (a) of this Rule, exhibit at or near the top of the mast, where they can best be seen, two all-round lights in a vertical line, the upper being red and the lower green, but these lights shall not be exhibited in conjunction with combined lantern permitted by paragraph (b) of this Rule.

(d) (i) A sailing vessel of less than 7 meters 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 vessel, 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 can best be seen a conical shape, apex downward. A vessel of less than 12 meters in length is not required to exhibit this shape, but may do so.

Rule 26 Fishing Vessels

(a) A vessel engaged in fishing, whether underway or at anchor, shall exhibit only the lights and shapes prescribed in 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 meters 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 meters in length shall not be obliged to exhibit such a light but may do so; and

(iii) when making way through the water, in addition to the lights prescribed in this paragraph, sidelights and a sternlight.

(c) A vessel engaged in fishing, other than trawling, shall exhibit:

(i) two all-round lights in a vertical line, the upper being red and the lower white, or a shape consisting of two cones with apexes together in a vertical line one above the other; a vessel of less than 20 meters in length may instead of this shape exhibit a basket;

(ii) when there is outlying gear extending more than 150 meters horizontally from the vessel, an all-round white light or a cone apex upward in the direction of the gear; and

(iii) when making way through the water, in addition to the lights prescribed in this paragraph, sidelights and a sternlight.

(d) A vessel engaged in fishing in close proximity to other vessels engaged in fishing may exhibit the additional signals described in Annex 11 to these Rules.

(e) A vessel when 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 Maneuver

(a) A vessel not under command shall exhibit:

- (i) two all-round red lights in a vertical line where they can best be seen;
- (ii) two balls or similar shapes in a vertical line where they can best be seen; and
- (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 maneuver, except a vessel engaged in mineclearance operations, shall exhibit:

- (i) three all-round lights in a vertical line where they can best 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 can best 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, masthead lights, sidelights and a sternlight, in addition to the lights prescribed in subparagraph (b)(i); and
- (iv) when at anchor, in addition to the lights or shapes prescribed in subparagraphs (b)(i) and (ii), the light, lights or shapes prescribed in Rule 30.

(c) A vessel engaged in a towing operation which severely restricts the towing vessel and her tow in their ability to deviate from their course shall, in addition to the lights or shapes prescribed in subparagraphs (b)(i) and (ii) of this Rule, exhibit the lights or shape prescribed in Rule 24.

(d) A vessel engaged in dredging or underwater operations, when restricted in her ability to maneuver, shall exhibit the lights and shapes prescribed in subparagraphs (b)(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; and
- (iii) when at anchor, the lights or shapes prescribed in Rule 30 for anchored vessels.

(e) Whenever the size of a vessel engaged in diving operations makes it impracticable to exhibit all lights and shapes prescribed in paragraph (d) of this Rule, the following shall instead be exhibited:

(i) Three all-round lights in a vertical line where they can best 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 international Code flag "A" not less than 1 meter in height. Measures shall be taken to insure its all-round visibility.

(f) A vessel engaged in mineclearance 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 meters of the mineclearance vessel.

(g) A vessel of less than 12 meters in length, except when engaged in diving operations, is not required to exhibit the lights or 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 Rules.

Rule 29 [sic] Pilot Vessels

(a) A vessel engaged on postage duty shall exhibit:

(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; and

(iii) when at anchor, in addition to the lights prescribed in Rule 30 for anchored vessels.

(b) A pilot vessel when not engaged on postage duty shall exhibit the lights or shapes prescribed for a 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; and

(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 of less than 50 meters 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 meters or 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) or (b) of this Rule in addition, if practicable, where they can best be seen:

(i) two all-round red lights in a vertical line; and

(ii) three balls in a vertical line.

(e) A vessel of less than 7 meters in length, when at anchor, not in or near a narrow channel, fairway, anchorage, or where other vessels normally navigate, shall not be required to exhibit the lights or shape prescribed in paragraphs (a) and (b) of this Rule.

(f) A vessel of less than 12 meters in length when aground shall not be required to exhibit the lights or shapes prescribed in subparagraphs (d)(i) and (ii) of this Rule.

(g) A vessel of less than 20 meters in length, when at anchor in a special anchorage area designated by the secretary, shall not be required to exhibit the anchor lights and shapes required by this Rule.

Rule 31 Sea Planes

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

Section 4. Sound and Light Signals

Rule 32 Definitions

(a) The word "whistle" means any sound signaling appliance capable of producing the prescribed blasts and which complies with specifications in Section 8 to these Rules.

(b) The term "short blast" means a blast of about 1 seconds duration.

(c) The term "prolonged blast" means a blast of from 4 to 6 seconds' duration.

Rule 33 Equipment for Sound Signals

(a) A vessel of 12 meters or more in length shall be provided with a whistle and a bell and a vessel of 100 meters 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 Rules. The bell or gong or both may be replaced by other equipment having the same respective sound characteristics, provided that manual sounding of the prescribed signals shall always be possible.

(b) A vessel of less than 12 meters in length shall not be obliged to carry the sound signaling 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 sound signal.

Rule 34 Maneuvering and Warning Signals

(a) When power-driven vessels are in sight of one another and meeting or crossing at a distance within half a mile of each other, each vessel underway, when maneuvering as authorized or required by these Rules:

(i) shall indicate that maneuver by the following signals on her whistle: one short blast to mean "I intend to leave you on my port side"; two short blasts to mean "I intend to leave you on my starboard side"; and three short blasts to mean "I am operating astern propulsion".

(ii) upon hearing the one or two blast signal of the other shall, if in agreement, sound the same whistle signal and take the steps necessary to effect a safe passing. If, however, from any cause, the vessel doubts the safety of the proposed maneuver, she shall sound the danger signal specified in paragraph (d) of this Rule and each vessel shall take appropriate precautionary action until a safe passing agreement is made.

(b) A vessel may supplement the whistle signals prescribed in paragraph (a) of this Rule by light signals:

(i) These signals shall have the following significance: one flash to mean "I intend to leave you on my port side"; two flashes to mean "I intend to leave you on my starboard side"; three flashes to mean "I am operating astern propulsion";

(ii) The duration of each flash shall be about 1 second; and

(iii) The light used for the signal shall, if fitted, be one all-round white or yellow light, visible at a minimum range of 2 miles, synchronized with the whistle, and shall comply with the provisions of Annex I to these Rules.

(c) When in sight of one another:

(i) a power-driven vessel intending to overtake another power-driven vessel shall indicate her intention by the following signals on her whistle: one short blast to mean "I intend to overtake you on your starboard side"; two short blasts to mean "I intend to overtake you on your port side"; and

(ii) the power-driven vessel about to be overtaken shall, if in agreement, sound a similar sound signal. If in doubt she shall sound the danger signal prescribed in paragraph (d).

(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. This 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. This signal shall be answered with a prolonged blast by any approaching vessel that may be within hearing around the bend or behind the intervening obstruction.

(f) If whistles are fitted on a vessel at a distance apart of more than 100 meters, one whistle only shall be used for giving maneuvering and warning signals.

(g) When a power-driven vessel is leaving a dock or berth, she shall sound one prolonged blast.

(h) A vessel that reaches agreement with another vessel in a meeting, crossing, or overtaking situation by using the radiotelephone is not obliged to sound the whistle signals prescribed by this Rule, but may do so. If agreement is not reached, then whistle signals shall be exchanged in a timely manner and shall prevail.

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 not 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 maneuver, whether underway or at anchor; a sailing vessel; a vessel engaged in fishing, whether underway or at anchor; and a vessel engaged in towing or pushing another vessel shall, instead of the signals prescribed in paragraphs (a) or (b) of this Rule, sound at intervals of not more than 2 minutes, three blasts in succession; namely, one prolonged followed by two short blasts.

(d) A vessel towed or if more than one vessel is towed the last vessel of the tow, if manned, shall at intervals of not more than 2 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.

(e) 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.

(f) A vessel at anchor shall at intervals of not more than 1 minute ring the bell rapidly for about 5 seconds. In a vessel of 100 meters or more in length the bell shall be sounded in the forepart of the vessel. A vessel at anchor may in addition sound three blasts in succession; namely, one short, one prolonged and one short blast, to give warning of her position and of the possibility of collision to an approaching vessel.

(g) A vessel aground shall give the bell signal and if required the gong signal prescribed in paragraph (f) 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.

(h) A vessel of less than 12 meters in length shall not be obliged to give the abovementioned signals but, if she does not, shall make some other efficient sound signal at intervals of not more than 2 minutes.

(i) A pilot vessel when engaged on postage duty may in addition to the signals prescribed in paragraphs (a), (b) or (f) of this Rule sound an identify signal consisting of four short blasts.

(j) The following vessels shall not be required to sound signals as prescribed in paragraph (f) of this Rule when anchored in a special anchorage are designated by the Secretary:

(i) a vessel of less than 20 meters in length; and

(ii) a barge, canal boat, scow, or other nondescript craft.

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 authorized 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.

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 Rules.

A high intensity white light flashing at regular intervals from 50 to 70 times per minute.

Section 5. Exemptions

Rule 38 Exemptions

Any vessel or class of vessels, the keel of which is laid or which is at a corresponding stage of construction before the effective date of these regulations, provided that she complies with the following requirements:

(a) the installation of lights with ranges prescribed in Rule 22, until 4 years after effective date of these Rules, except that vessels of less than 20 meters in length are permanently exempt.

(b) the installation of lights with color specification as prescribed in Annex I to these Rules, until 4 years after the effective date of these Rules, except that vessels of less than 20 meters in length are permanently exempt;

(c) the responding of lights as a result of conversion to metric units and rounding of measurement figures, are permanently exempt; and.

(d) the horizontal repositioning of masthead lights prescribed by Annex I to these Rules:

(1) on vessels of 150 meters in length, permanent exemption.

(2) on vessels of 150 meters or more in length, until 9 years after the effective date of these Rules.

(e) the restructuring or repositioning of all lights to meet the prescriptions of Annex I to these Rules, until 9 years after the effective date of these Rules;

(f) power-driven vessels of 12 meters or more but less than 20 meters in length are permanently exempt from the provisions of Rule 23(a)(i) and 23 (a)(iv) provided that, in place of these lights, the vessel exhibits a white light aft visible all round the horizon; and

(g) the requirements for sound signal appliances prescribed in Annex III to these Rules, until 9 years after the effective date of these Rules.

Annex I. Positioning and Technical Details of Lights and Shapes

Section 1. Definitions.

(a) The term "height above the hull" means height above the uppermost continuous deck. This height shall be measured from the position vertically beneath the location of the light.

(b) The term "practical cut-off" means, for vessels 20 meters or more in length, 12.5 percent of the minimum luminous intensity corresponding to the greatest range of visibility for which the requirements of Annex I are met.

(c) The term "Rule" or "Rules" means the Inland Navigation Rules.

Section 2. Vertical positioning and spacing of lights.

(a) On a power-driven vessel of 20 meters or more in length the masthead lights shall be placed as follows:

(1) 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 5 meters, and, if the breadth of the vessel exceeds 5 meters, then at a height above the hull not less than such breadth, so however that the light need not be placed at a greater height above the hull than 8 meters;

(2) When two masthead lights are carried the after one shall be at least 2 meters vertically higher than the forward one.

(b) The vertical separation of the masthead lights of power-driven vessels shall be such that in all normal conditions of trim the after light will be seen over and separate from the forward light at a distance of 1000 meters from the stem when viewed from water level.

(c) The masthead light of a power-driven vessel of 12 meters but less than 20 meters in length shall be placed at a height above the gunwale of not less than 2.5 meters.

(d) The masthead light, or the all-round light described in Rule 23(c), of a power-driven vessel of less than 12 meters in length shall be carried at least one meter higher than the sidelights.

(e) One of the two or three masthead lights prescribed for a power-driven vessel when engaged in towing or pushing another vessel shall be placed in the same position as either the forward masthead light or the after masthead light, provided that the lowest after masthead light shall be at least 2 meters vertically higher than the highest forward masthead light.

(f) (1) The masthead light or lights prescribed in Rule 23(a) shall be so placed as to be above and clear of all other lights and obstructions except as described in paragraph (f)(2) of this section.

(2) When it is impracticable to carry the all-round lights prescribed in Rule 27(b)(i) below the masthead lights, they may be carried above the after masthead light(s) or vertically in between the forward masthead light(s) and after masthead light(s) provided that in the latter case the requirement of Section 3(d) shall be complied with.

(g) The sidelights of a power-driven vessel shall be placed at least one meter lower than the forward masthead light. They shall not be so low as to be interfered with by deck lights.

(h) When the Rules prescribe two or three lights to be carried in a vertical line, they shall be spaced as follows:

(1) On a vessel of 20 meters in length or more such lights shall be spaced not less than 1 meter apart, and the lowest of these lights shall, except where a towing light is required, be placed at a height of not less than 4 meters above the hull;

(2) On a vessel of less than 20 meters in length such lights shall be spaced not less than 1 meter apart and the lowest of these lights shall, except where a towing light is required, be placed at a height of not less than 2 meters above the gunwale;

(3) When three lights are carried they shall be equally spaced.

(i) The lower of the two all-round lights prescribed for a vessel when engaged in fishing shall be at a height above the sidelights not less than twice the distance between the two vertical lights.

(j) The forward anchor light prescribed in Rule 30(a)(i), when two are carried, shall not be less than 4.5 meters above the after one. On a vessel of 50 meters or more in length this forward anchor light shall be placed at a height of not less than 6 meters above the hull.

Section 3. Horizontal positioning and spacing of lights

(a) Except as specified in paragraph (b) of this section, when two masthead lights are prescribed for a power-driven vessel, the horizontal distance between them shall not be less than one quarter of the length of the vessel but need not be more than 50 meters. The forward light shall be placed not more than one half of the length of the vessel from the stem.

(b) On power-driven vessel of 50 meters but less than 60 meters in length, the horizontal distance between masthead lights shall not be less than 10 meters.

(c) On a power-driven vessel of 20 meters or more in length the sidelights shall not be placed in front of the forward masthead lights. They shall be placed at or near the side of the vessel.

(d) When the lights prescribed in Rule 27(b)(i) are placed vertically between the forward masthead light(s) and the after masthead light(s) these all-round lights shall be placed at a horizontal distance of not less than 2 meters from the fore and aft centerline of the vessel in the athwartship direction.

Section 4. Details of location of direction-indicating lights for fishing vessels engaged in underwater operations.

(a) The light indicating the direction of the outlying gear from a vessel engaged in fishing as prescribed in Rule 26(c)(ii) shall be placed at a horizontal distance of not less than 2 meters and not more than 6 meters away from the two all-round red and white lights. This light shall be placed not higher than the all-round white light prescribed in Rule 26(c)(i) and not lower than the sidelights:

(b) The lights and shapes on a vessel engaged in dredging or underwater operations to

indicate the obstructed side and/or the side on which it is safe to pass, as prescribed in Rule 27(d)(i) and (ii), shall be placed at the maximum practical horizontal distance, but in no case less than 2 meters, from the lights or shapes prescribed in Rule 27(b)(i) and (ii). In no case shall the upper of these lights or shapes be at a greater height than the lower of the three lights or shapes prescribed in Rule 27(b)(i) and (ii).

Section 5. Screens

(a) The sidelights of vessel of 20 meters or more in length shall be fitted with mat black inboard screens and meet the requirements of Section 9. On vessels of less than 20 meters in length, the sidelights, if necessary to meet the requirements of Section 9, shall be fitted with mat black inboard screens. With a combined lantern, using a single vertical filament and a very narrow division between the green and red sections, external screens need not be fitted.

(b) On power-driven vessels less than 12 meters in length constructed after July 31, 1983, the masthead light, or the all-round light described in Rule 23(c) shall be screened to prevent direct illumination of the vessel forward of the operator's position.

Section 6. Shapes

(a) Shapes shall be black and of the following sizes:

- (1) A ball shall have a diameter of not less 0.6 meter;
- (2) A cone shall have a base diameter of not less than 0.6 meter and a height equal to its diameter;
- (3) A diamond shape shall consist of two cones (as defined in Paragraph (a)(2) of this section) having a common base.

(b) The vertical distance between shapes shall be at least 1.5 meter.

(c) In a vessel of less than 20 meters in length shapes of lesser dimensions but commensurate with the size of the vessel may be used and the distance apart may be correspondingly reduced.

Section 7. Color specification of lights

(a) The chromaticity of all navigation lights shall conform to the following standards, which lie within the boundaries of the area of the diagram specified for each color by the International Commission on Illumination (CIE), in the "Colors of Light Signals", which is incorporated by reference. It is Publication CIE No. 2.2. (TC-1.6), 1975, and is available from the Illumination Engineering Society, 345 East 47th Street, New York, NY 10017.

(b) The boundaries of the area for each color are given by indicating the corner coordinates, which are as follows:

(1) 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

(2) Green:
 x 0.028 0.009 0.300 0.203
 y 0.385 0.723 0.511 0.356

(3) Red:
 x 0.680 0.660 0.735 0.721
 y 0.320 0.320 0.265 0.259

(4) Yellow:
 x 0.612 0.618 0.575 0.575
 y 0.382 0.382 0.425 0.406

Section 8. Intensity of lights

(a) The minimum luminous intensity of lights shall 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 threshold factor 2×10^{-7} lux,

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

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

(b) A selection of figures derived from the formula is given in Table 84.15(b).

Table 84.15(b)

Range of visibility (luminous range) of light in nautical miles D	Minimum luminous intensity of light in candelas for K=0.8 I
1	0.9
2	4.3
3	12
4	27
5	52
6	94

Section 9. Horizontal sectors

(a) (1) In the forward direction, sidelights as fitted on the vessel shall show the minimum required intensities. The intensities shall decrease to reach practical cut-off between 1 and 3 degrees outside the prescribed sectors.

(2) For sternlights and masthead lights and at 22.5 degrees abaft the beam for sidelights, the minimum required intensities shall be maintained over the arc of the horizon up to 5 degrees within the limits of the sectors prescribed in Rule 21. From 5 degrees within the prescribed sectors the intensity may decrease by 50 percent up to the prescribed limits; it shall decrease steadily to reach practical cutoff at not more than 5 degrees outside the prescribed sectors.

(b) All-round lights shall be so located as not to be obscured by masts, topmasts or structures within angular sectors of more than 6 degrees, except anchor lights prescribed in Rule 30, which need not be placed at an impracticable height above the hull, and the all-round white light described in Rule 23(d), which may not be obscured at all.

Section 10. Vertical sectors

(a) The vertical sectors of electric lights as fitted, with the exception of lights on sailing vessels underway and on unmanned barges, shall ensure that:

(1) At least the required minimum intensity is maintained at all angles from 5 degrees above to 5 degrees below the horizontal;

(2) At least 60 percent of the required minimum intensity is maintained from 7.5 degrees above to 7.5 degrees below the horizontal.

(b) In the case of sailing vessels underway the vertical sectors of electric lights as fitted shall ensure that:

(1) At least the required minimum intensity is maintained at all angles from 5 degrees above to 5 degrees below the horizontal;

(2) At least 50 percent of the required minimum intensity is maintained from 25 degrees above to 25 degrees below the horizontal.

(c) In the case of unmanned barges the minimum required intensity of electric lights as fitted shall be maintained on the horizontal.

(d) In the case of lights other than electric lights these specifications shall be met as closely as possible.

Section 11. Intensity of non-electric lights

Non-electric lights shall so far as practicable comply with the minimum intensities, as specified in the Table given in Section 8.

Section 12. Maneuvering light

Notwithstanding the provisions of Section 2(f), the maneuvering light described in Rule 34(b) shall be placed approximately in the same fore and aft vertical plane as the masthead light, provided that it shall be carried not less than one-half meter vertically above or below the after masthead light. On a vessel where only one masthead light is carried the maneuvering light, if fitted, shall be carried where it can best be seen, not less than one-half meter vertically apart from the masthead light.

Annex 11. Additional Signals for Fishing Vessels Fishing in Close Proximity

Section 1. General

The lights mentioned herein shall, if exhibited in pursuance of Rule 26(d), be placed where they can best be seen. They shall be at least 0.9 meter apart but at a lower level than lights prescribed in Rule 26(b)(i) and (c)(i) contained in the Inland Navigational Rules. The lights shall be visible all around the horizon at a distance of at least 1 mile but at a lesser distance than the lights prescribed by these Rules for fishing vessels.

Section 2. Signals for trawlers

(a) Vessels when engaged in trawling, whether using demersal or pelagic gear, may exhibit:

- (1) When shooting their nets: two white lights in a vertical line;
- (2) When hauling their nets: one white light over one red light in a vertical line;
- (3) When the net has come fast upon an obstruction: two red lights in a vertical line.

(b) Each vessel engaged in pair trawling may exhibit:

- (1) By night, a searchlight directed forward and in the direction of the other vessel of the pair;
- (2) When shooting or hauling their nets or when their nets have come fast upon an obstruction, the lights prescribed in paragraph (a) above.

Section 3. Signals for purse seiners

Vessels engaged in fishing with purse seine gear may exhibit two yellow lights in a vertical line. These lights shall flash alternately every second and with equal light and occultation duration. These lights may be exhibited only when the vessel is hampered by its fishing gear.

Annex III. Technical Details of Sound Signal Appliances

Section 1. Whistles

Subsection 1. Frequencies and range of audibility.

The fundamental frequency of the signal shall lie within the range 70-525 Hz. The range of audibility of the signal from a whistle shall be determined by those frequencies, which may include the fundamental and/or one or more higher frequencies, which lie within the frequency ranges and provide the sound pressure levels specified in Subsection 3 of this section.

Subsection 2. Limits of fundamental frequencies.

To ensure a wide variety of whistle characteristics, the fundamental frequency of a whistle shall be between the following limits:

- (a) 70-200 Hz, for a vessel 200 meters or more in length;
- (b) 130-350 Hz, for a vessel 75 meters but less than 200 meters in length.
- (c) 250-525 Hz, for a vessel less than 75 meters in length.

Subsection 3. Sound signal intensity and range of audibility.

A whistle on a vessel shall provide, in the direction of the forward axis of the whistle and at a distance of 1 meter from it, a sound pressure level in at least one /3-octave band of not less than the appropriate figure given in Table 1 within the following frequency ranges (+ 1 percent):

- (a) 130-1200 Hz, for a vessel 75 meters or more in length;
- (b) 250-1600 Hz, for a vessel 20 meters but less than 75 meters in length;
- (c) 250-2100 Hz, for a vessel 12 meters but less than 20 meters in length.

Table 1

Length of vessel in meters	Fundamental frequency range (hz)	For measured frequencies (hz)	1/3-octave band level at 1 meter in dB referred to $2 \times 10^{-5} \text{N/m}^2$	Audibility range in nautical miles
200 or more	70-200	130-180	145	2
		180-250	143	
		250-1200	140	
75 but less than 200	130-350	130-180	140	1.5
		180-250	138	
		250-1200	134	
20 but less than 75	250-525	250-450	130	1.0
		450-800	125	
		800-1600	121	
12 but less than 20	250-525	250-450	120	0.5
		450-800	115	
		800-2100	111	

Note: The range of audibility in the table above is for information and is approximately the range at which a whistle may usually be heard on its forward axis in conditions of still air on board a vessel having average background noise level at the listening posts (taken to be 68 dB in the octave band centered on 250 Hz and 63dB in the octave band centered 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.

Subsection 4. Directional properties.

The sound pressure level of a directional whistle shall be not more than 4 dB below the sound pressure level specified in Subsection 3 of this section in any direction in the horizontal plane within ± 45 degrees of the forward axis. The sound pressure level of the whistle at any other direction in the horizontal plane shall not be more than 10 dB less than the sound pressure level specified for the forward axis, so that the range of audibility in any direction will be at least half the range required on the forward axis. The sound pressure level shall be measured in that one-third octave band which determines the audibility range.

Subsection 5. Positioning of whistles.

(a) When a directional whistle is to be used as the only whistle on the vessel and is permanently installed, it shall be installed with its forward axis directed forward.

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

Subsection 6. Towing vessel whistles.

A power-driven vessel normally engaged in pushing ahead or towing alongside may, at all times, use a whistle whose characteristic falls within the limits prescribed by Subsection 2 of this section for the longest customary composite length of the vessel and its tow.

Section 2. Bell or Gong

Subsection 1. Intensity of signal.

A bell or gong, or other device having similar sound characteristics shall produce a sound pressure level of not less than 110 dB at 1 meter.

Subsection 2. Construction.

Bells and gongs shall be made of corrosion-resistant material and designed to give a clear

tone. The diameter of the mouth of the bell shall be not less than 300 mm for vessels of more than 20 meters in length, and shall not be less 200,mm for vessels of 12 to 20 meters in length. The mass of the striker shall not be less than 3 percent of the mass of the bell. The striker shall be capable of manual operation.

Note: When practicable, a power driven bell striker is recommended to ensure constant force.

Annex IV. Distress Signals

Section 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-signaling apparatus;
- (c) Rockets or shells, throwing red stars fired one at a time at short intervals;
- (d) A signal made by radiotelegraphy or by any other signaling 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 anything resembling a ball;
- (h) Flames on the vessel (as 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-colored smoke;
- (k) Slowly and repeatedly raising and lowering arms outstretched to each side;
- (l) The radiotelegraph alarm signal;
- (m) The radiotelephone alarm signal;
- (n) Signals transmitted by emergency position-indicating radio beacons;
- (o) Signals transmitted by radiocommunication systems.
- (p) A high intensity white light flashing at regular intervals from 50 to 70 times per minute.

Section 2. Exclusive Use.

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

Section 3. Supplemental signals.

Attention is drawn to the relevant sections of the International Code of Signals, the Merchant Ship Search and Rescue Manual, the International Telecommunication Union Regulations, and the following signals:

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

Annex V. Pilot Rules

Section 1. Purpose and applicability.

This Part applies to all vessels operating on territorial waters of the Republic of Palau.

Section 2. Definitions.

The terms used in this part have the same meaning as defined in the Inland Navigational Rules.

Section 3. Copy of Rules.

After January 1, 1998, the operator of each self-propelled vessel 12 meters or more in length shall carry on board and maintain for ready reference a copy of the Inland Navigation Rules.

Section 4. Pilotage Service Required

1. Pursuant to 13 PNC Section 1110, Republic pilotage service shall be required on all vessels having gross registered tonnage of 200 GRT or over on all waters of the Republic of Palau.

2. A vessel, owned, operated and under command by a citizen of the Republic of Palau, may be exempted from Section 1 of this annex.

3. Notwithstanding any other provision of 13 PNC Section 1110 and Section 4 of this annex, pilotage service may be waived by the Chief of Transportation Division when:

- (a) the Director of Transportation and Communication, or his designee, notifies the master that a registered pilot is not available;
- (b) an adverse weather condition of windforce of 4 or over exists;
- (c) a bonifide distress or emergency situation exists;
- (d) the vessel or its cargo is in distress or jeopardy; or
- (e) the vessel is a foreign fishing vessel or military vessel.

4. The services of a Republic registered pilot shall be charged at the rate of \$.12 per gross registered tonnage of the vessel per movement or a minimum charge of \$300.00 per movement, whichever is greater of the two.

5. An additional 10% of the compensation set forth in Section 4(4) for the service of a Republic registered pilot shall be chargeable during:

- (a) adverse weather conditions, i.e. tropical storm, tropical depression or typhoon;
- (b) national holidays; or
- (c) any period of time after sunset and before sunrise.

6. All BMI licensed and registered pilot shall charge pilotage service in accordance with the established rates set forth in Section 4(4) of this annex. Any BMI licensed pilot who fails to comply with the above requirement shall be fined as follows:

- (a) for the first offense, the whole pilotage fee shall be forfeited;
- (b) for the second offense, the whole pilotage fee shall be forfeited. In addition, the Board shall suspend the pilot's license for the period of six months;
- (c) for the third offense, the whole pilotage fee shall be forfeited. In addition, the Board shall revoke the pilot's license.

All forfeited fines shall be collected by the Board of Marine Inspectors and shall be remitted to the National Treasury.

7. No pilot shall engage in pilotage service in the waters of the Republic of Palau without being duly licensed and registered by the Board of Marine Inspectors.

Annex VI. Lights and Shapes

Section 1. Temporary exemption from light and shape requirements when operating under bridges.

A vessel's navigation lights and shapes may be lowered if necessary to pass under a bridge.

Section 2. Law enforcement vessels.

(a) Law enforcement vessels may display a flashing blue light when engaged in direct law enforcement or public safety activities. This light must be located so that it does not interfere with the visibility of the vessel's navigation lights.

(b) The blue light described in this section may be displayed by law enforcement vessels of the Republic of Palau and its states.

Section 3. Public Safety Activities.

(a) Vessels engaged in government sanctioned public safety activities, and commercial vessels performing similar functions, may display an alternately flashing red and yellow light signal. This identification light signal must be located so that it does not interfere with the visibility of the vessel's navigation lights. The identification light signal may be used only as an identification signal and conveys no special privilege. Vessels using the identification light signal during public safety

activities must abide by the Inland Navigation Rules, and must not presume that the light or the exigency gives them precedence or right of way.

(b) Public safety activities include but are not limited to patrolling marine parades, regattas, or special water celebrations; traffic control; salvage; fire-fighting; medical assistance; assisting disabled vessels; and search and rescue.

Section 4. Lights on barges at bank or dock.

(a) The following barges shall display at night and , if practicable, in periods of restricted visibility the lights described in paragraph (b) of this section:

- (1) Every barge projecting into a buoyed or restricted channel.
- (2) Every barge so moored that it reduces the available navigable width of any channel to less than 80 meters.
- (3) Barges moored in groups more than two barges wide or maximum width of over 25 meters.
- (4) Every barge not moored parallel to the bank or dock.

(b) Barges described in paragraph (a) shall carry two unobstructed white lights of an intensity to be visible for at least one mile on a clear dark night, and arranged as follows:

- (1) On a single moored barge, lights shall be placed on the two comers farthest from the bank or dock.
- (2) On barges moored in group formation, a light shall be placed on each of the upstream and downstream ends of the group, on the comers farthest from the bank or dock.
- (3) Any barge in a group, projecting from the main body of the group toward the channel, shall be lighted as a single barge.

(c) Barges moored in any slip or slough which is used primarily for mooring purposes are exempt from the lighting requirements of this section.

(d) Barges moored in well-illuminated areas are exempt from the lighting requirements of this section. This only applies to the Inland Rules of the Republic of Palau.

Section 5. Lights on dredge pipelines.

Dredge pipelines that are floating or supported on trestles shall display the following lights at night and in periods of restricted visibility.

(a) One row of yellow lights. The lights must be-

- (1) Flashing 50 to 70 times per minute,
 - (2) Visible all around the horizon,
 - (3) Visible for at least 2 miles on a clear dark night,
 - (4) Not less than 1 and not more than 3.5 meters above the water,
 - (5) Approximately equally spaced, and
 - (6) Not more than 10 meters apart where the pipeline crosses a navigable channel.
- Where the pipeline does not cross a navigable channel the lights must be sufficient in number to clearly show the pipeline's length and course.

(b) Two red lights at each end of the pipeline, including the ends in a channel where the pipeline is separated to allow vessels to pass (whether open or closed). The lights must be-

- (1) Visible all around the horizon, and
- (2) Visible for at least 2 miles on a clear dark night, and
- (3) One meter apart in a vertical line with the lower light at the same height above the water as the flashing yellow light.

Section 6. Purpose.

(a) This part contains the interpretative rules for the Inland Rules. These interpretative rules are intended as a guide to assist the public and promote compliance with the Inland Rules.

Section 7. Pushing vessel and vessel being pushed: Composite unit.

Rule 24(b) of the Inland Rules states that when a pushing vessel and a vessel being pushed ahead are rigidly connected in a composite unit, they are regarded as a power-driven vessel and must exhibit the lights prescribed in Rule 23. A "composite unit" is interpreted to be the combination of a pushing vessel and a vessel being pushed ahead that are rigidly connected by mechanical means so they react to sea and swell as one vessel. Mechanical means does not include lines, wires, hawsers, or chains.

Part II. International Rules of the Road

Section 1. General

Rule 1 Application

(a) These Rules shall apply to all vessels upon the high seas and in all waters connected therewith navigable by seagoing vessels.

(b) Nothing in these Rules shall interfere with the operation of special rules made by an appropriate authority for roadsteads, harbors, rivers, or inland waterways connected with the high seas and navigable by seagoing vessels. Such special rules shall conform as closely as possible to these Rules.

(c) Nothing in these Rules shall interfere with the operation of any special rules made by the Government of any state with respect to additional station or signal lights, shapes or whistle signals for ships of war and vessels proceeding under convoy, with respect to additional station or signal lights or shapes for fishing vessels engaged in fishing as a fleet. These additional station or signal lights, shapes or whistle signals shall, so far as possible, be such that they cannot be mistaken for any light shape or signal authorized elsewhere under these Rules.

(d) Traffic separation schemes may be adopted by the Organization for the purpose of these Rules.

(e) Whenever the Government concerned shall have determined that a vessel of special construction or purpose cannot comply fully with the provisions of any of these Rules with respect to the number, position, range or arc of visibility of lights or shapes, as well as to the disposition and characteristics of sound-signaling appliances, such vessel shall comply with such other provisions in regard to the number, position, range or arc of visibility of lights or shapes, as well as to the disposition and characteristics of sound-signaling appliances, as her government shall have determined to be the closest possible compliance with these rules in respect to that vessel.

Rule 2 Responsibility

(a) Nothing in these Rules shall exonerate any vessel, or the owner, master or crew thereof, from the consequences of any neglect to comply with these Rules or of the neglect of any precaution which may be required by the ordinary practice of seamen, or by the special circumstances of the case.

(b) In construing 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

For the purpose of these Rules, except where the context otherwise requires:

(a) The word "Vessel" includes every description of water craft, including nondisplacement craft and seaplanes, used or capable of being used as a means of transportation on water.

(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 maneuverability, but does not include a vessel fishing with trolling lines or other fishing apparatus which do not restrict

maneuverability.

(e) The word "Seaplane" includes any aircraft designed to maneuver on the water.

(f) The term "Vessel not under command" means a vessel which through some exceptional circumstance is unable to maneuver as required by these Rules and is therefore unable to keep out of the way of another vessel.

(g) The term "Vessel restricted in her ability to maneuver" means a vessel which from the nature of her work is restricted in her ability to maneuver as required by these Rules and is therefore unable to keep out of the way of another vessel. The term "Vessels restricted in their ability to maneuver" shall include but not be limited to:

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

(ii) a vessel engaged in dredging, surveying or underwater operations;

(iii) a vessel engaged in replenishment or transferring persons, provisions or cargo while underway;

(iv) a vessel engaged in the launching or recovery of aircraft;

(v) a vessel engaged in mineclearance operations;

(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.

(h) The term "vessel constrained by her draft" means a power-driven vessel which, because of draft 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 that a vessel is not at anchor, or made fast to the shore, or aground.

(j) The words "length" and "breadth" of a vessel means her length overall and greatest breadth.

(k) Vessels shall be deemed to be in sight of one another only when one can be observed visually from the other.

(l) The term "restricted visibility" means any condition in which visibility is restricted by fog, mist, falling snow, heavy rainstorms, sandstorms or any other similar causes.

Section 2. Steering and Sailing Rules

Subsection 1. 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 and 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 maneuverability 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 draft in relation to the available depth of water.

(b) Additionally, by vessels 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 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 risk of 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 if 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 taken to avoid collision shall, if the 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 and/or speed should be avoided.

(c) 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 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 shall slacken her speed or take all way off by stopping or reversing her means of propulsion.

(iii) (i) A vessel which, 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 rule 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 which lies on her starboard side as is safe and practicable.

(b) A vessel of less than 20 meters in length or a sailing vessel shall not impede the passage of a vessel which can safely navigate only within a narrow channel.

(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 intention of the crossing vessel.

(e) (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 34(d).

(ii) This Rule does not relieve the overtaking vessel of her obligation 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 International Maritime

Organization (IMO) and does not relieve any vessel of her obligation under any other rule.

(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 general direction of traffic flow as practicable.

(c) A vessel shall, so 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) (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 meters 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 inshore traffic zone, or to avoid immediate danger.

(e) A vessel other than a crossing vessel or a vessel joining or leaving a lane shall not normally enter a separation zone or cross a separation line except:

- (i) in cases of emergency to avoid immediate danger;
- (ii) to engage in fishing within a separation zone.

(f) A vessel navigating in areas near the terminations of traffic separation schemes shall do so with particular caution.

(g) A vessel shall so 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 meters 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 maneuver when engaged in an operation for the maintenance of safety of navigation in a traffic separation scheme is exempted from complying with this Rule to the extent necessary to carry out the operation.

(l) A vessel restricted in her ability to maneuver 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.

Subsection 2. Conduct of Vessels in Sight of One Another

Rule 11 Application

Rules in this section apply to 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 follows:

(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 as follows;

(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 on which the mainsail is carried or, in the case of a square-rigged vessel, the side opposite to that on which the largest fore-and-aft sail is carried.

Rule 13 Overtaking

(a) Notwithstanding anything contained in the Rules of Part B. Sections 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 22.5 degrees abaft her beam, that at night she would be able to see only the sternlight of that vessel but neither of her sidelights.

(c) When a vessel is in any doubt as to whether she is overtaking another, she shall assume that 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 duty of keeping clear of the overtaken vessel until she is 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 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 a line or nearly in a line and/or both sidelights 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 each shall keep out of the way and shall, if the circumstances of the case admit, avoid crossing ahead of the other.

Rule 16 Action by Stand-on 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) (i) Where one of two vessels is to keep out of the way the other shall keep her course and speed.

(ii) The latter vessel may however take action to avoid collision by her maneuver alone, as soon as it becomes apparent to her 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 her 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 situation 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 underway shall keep out of the way of:

- (i) a vessel not under command;
- (ii) a vessel restricted in her ability to maneuver;
- (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 maneuver;
- (iii) a vessel engaged in fishing.

(c) A vessel engaged in fishing when underway shall, so far as possible, keep out of the way of:

- (i) a vessel not under command;
- (ii) a vessel restricted in her ability to maneuver.

(d) (i) Any vessel other than a vessel not under command or a vessel restricted in her ability to maneuver shall, if the circumstances of the case admit, avoid impeding the safe passage of a vessel constrained by her draft, exhibiting the signals in Rule 28.

(ii) A vessel constrained by her draft shall navigate with particular caution having full regard to her special condition.

(e) A seaplane on the water shall, in general, keep well 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.

Subsection 3. 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 conditions of restricted visibility. A power-driven vessel shall have her engines ready for immediate maneuver.

(c) Every vessel shall have due regard to the prevailing circumstances and conditions of restricted visibility when complying with the Rule of Section I 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 other than for a vessel being overtaken;
- (ii) an alteration of course towards 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 her beam, shall reduce her speed to 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.

Section 3. 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 by 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 Annex I to these Regulations.

Rule 21 Definitions

(a) "Masthead light" means a white light placed over the fore and aft centerline of the vessel showing an unbroken light over an arc of the horizon of 225 degrees and so fixed as to show the light from right ahead to 22.5 degrees abaft the beam on either side of the vessel.

(b) "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 so fixed as to show the

light from right ahead to 22.5 degrees abaft the beam on its respective side. In a vessel of less than 20 meters in length the sidelights may be combined in one lantern carried on the fore and aft centerline of the vessel.

(c) "Sternlight" means a white light placed as nearly as practicable at the stern showing an unbroken light over an arc of the horizon of 135 degrees and so fixed as to show the light 67.5 degrees from right aft on each side of the vessel.

(d) "Towing light" means a yellow light having the same characteristics as the "sternlight" 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 degrees.

(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 so as to be visible at the following minimum ranges:

(a) In vessels of 50 meters 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 meters or more in length but less than 50 meters in length:

- a masthead light, 5 miles; except that where the length of the vessel is less than 20 meters, 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 meters in length:

- a masthead light, 2 miles;
- a sidelight, 1 mile;
- a sternlight, 2 miles;
- 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 meters in length shall not be obliged to exhibit such light but may do so;
- (iii) sidelights;
- (iv) a sternlight.

(b) An air-cushion vessel when operating in the nondisplacement mode shall, in addition to the lights prescribed in paragraph (a) of this Rule, exhibit an all-round flashing yellow light.

(c) (i) A power-driven vessel of less than 12 meters 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 meters 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 meters in length may be displaced from the fore and aft centerline of the vessel if centerline fitting is not practicable, provided that the sidelights are combined in one lantern which shall be carried on the fore and aft centerline 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 after end of the tow exceeds 200 meters, three such lights in a vertical line;
- (ii) sidelights;
- (iii) a sternlight;
- (iv) a towing light in a vertical line above the sternlight;

(v) when the length of the tow exceeds 200 meters, a diamond shape where it can best be seen.

(b) When 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 exhibit the lights prescribed in Rule 23.

(c) A power-driven vessel when pushing ahead or towing alongside, except in the case of a composite unit, shall exhibit:

- (i) instead of the light prescribed in Rule 23(a)(i) or (a)(ii), two masthead lights in a vertical line;
- (ii) sidelights;
- (iii) a stern light.

(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) a sternlight;
- (iii) when the length of the tow exceeds 200 meters, 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 meters 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 meters or more in breadth, two additional all-round white lights at or near the extremities of its breadth;
- (iii) if it exceeds 100 meters 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 meters;

(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 meters an additional diamond shape where it can best be seen and located as far forward as is practicable.

(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 towed or at least to 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 authorized by Rule 36, in particular by illuminating the towline.

Rule 25 Sailing Vessels Underway and Vessels under Oars

(a) A sailing vessel underway shall exhibit:

- (i) sidelights;
- (ii) a stern light.

(b) In a sailing vessel of less than 20 meters 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 can best be seen.

(c) A sailing vessel underway may, in addition to the lights prescribed in paragraph (a) of this Rule, exhibit at or near the top of the mast, where they can best be seen, two all-round lights in a vertical line, the upper being red and the lower green. These lights shall not be exhibited in conjunction with the combined lantern permitted by paragraph (b) of this Rule.

(d) (i) A sailing vessel of less than 7 meters 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 prevent collision.

(iii) 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 can best 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 in this Rule.

(b) A vessel when engaged in trawling, by which is meant the dragging through the water dredge net or other apparatus used as a fishing appliance, shall exhibit:

(i) two all-around 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;

(ii) a masthead light abaft of and higher than the all-round green light; a vessel of less than 50 meters in length shall not be obliged to exhibit such light but may do so;

(iii) when making way through the waters in addition to the lights prescribed in this paragraph, sidelights and a sternlight.

(c) A vessel engaged in fishing, other than trawling, shall exhibit:

(i) two all-round lights in a vertical line, the upper being red and the lower white, or a shape consisting of two cones with apexes together in a vertical line one above the other;

(ii) when there is outlying gear extending more than 150 meters horizontally from the vessel, an all-round white light or a cone apex upwards in the direction of the gear;

(iii) when making way through the water, in addition to the lights prescribed in this paragraph, sidelights and a sternlight.

(d) The additional signals described in Annex II to these regulations apply to a vessel engaged in fishing in close proximity to other vessels engaged in fishing.

(e) A vessel when 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 Maneuver

(a) A vessel not under command shall exhibit:

- (i) two all-round red lights in a vertical line where they can best be seen;
- (ii) two balls or similar shapes in a vertical line where they can best 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 maneuver, except a vessel engaged in mineclearance operations, shall exhibit:

- (i) three all-round lights in a vertical line where they can best 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 can best 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 lights or shapes prescribed in subparagraphs (i) and (ii), 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 or shapes prescribed in Rule 24(a), exhibit the lights or shapes prescribed in Subparagraph (b)(i) and (ii) of this Rule.

(d) A vessel engaged in dredging or underwater operations, when restricted in her ability to maneuver, shall exhibit the lights and shapes prescribed in subparagraphs (b)(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 shape prescribed in Rule 30.

(e) Whenever the size of a vessel engaged in diving operations makes it 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 can best 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 International Code flag "A" not less than 1 meter in height. Measures shall be taken to ensure its all round visibility.

(f) A vessel engaged in mineclearance 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 100 meters of the mineclearance vessel.

(g) Vessels of less than 12 meters 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 Draft

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

Rule 29 Pilot Vessels

(a) A vessel engaged on postage duty shall exhibit:

(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 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, all-round white light or one ball;
- (ii) at or near the stern and at lower level than the light prescribed in subparagraph (i), an all-round white light.

(b) A vessel of less than 50 meters 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, and a vessel of 100 meters 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) or (b) of this Rule and in addition, where they can best be seen:

- (i) two all-round red lights in a vertical line;
- (ii) three balls in a vertical line.

(e) A vessel of less than 7 meters in length, when at anchor, not in or near a narrow channel, fairway or anchorage, or where lights or shape prescribed in paragraphs (a) and (b) of this Rule.

(f) A vessel of less than 12 meters 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 to exhibit lights and shapes of the characteristics or in the positions prescribed in the Rules of this Part she shall exhibit lights and shapes as closely similar in characteristics and position as is possible.

Section 4. Sound and Light Signals

Rule 32 Definitions

(a) The word "whistle" means any sound signaling appliance capable of producing the prescribed blasts and which complies with the specifications in Annex III to these Regulations.

(b) The term "short blast" means a blast of about one seconds duration.

(c) The term "prolonged blast" means a blast of from four to six seconds' duration.

Rule 33 Equipment for Sound Signals

(a) A vessel of 12 meters or more in length shall be provided with a whistle and a bell and

a vessel of 100 meters 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 prescribed signals shall always be possible.

(b) A vessel of less than 12 meters in length shall not be obliged to carry the sound signaling 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 sound signal.

Rule 34 Maneuvering and Warning Signals

(a) When vessels are in sight of one another, a power-driven vessel underway, when maneuvering as authorized or required by these Rules, shall indicate that maneuver by the following signals on her whistle:

- one short blast to mean "I am altering my course to starboard";
- two short blasts to mean "I am altering my course to port";
- 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, while the maneuver is being carried out:

(i) these light signals shall have the following significance:

- one flash to mean "I am altering my course to starboard";
- two flashes to mean "I am altering my course to port";
- 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 be not less than ten seconds;

(iii) the light used for this signal shall, if fitted, be an all-round white light, visible at a minimum 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:

- two prolonged blasts followed by one short blast mean "I intend to overtake you on your starboard side";
- 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 Rule 9(e)(i) shall indicate her agreement by the following signal on her whistle:

-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 an approaching vessel that may be within hearing around the bend or behind the intervening obstruction.

(f) If whistles are fitted on a vessel at a distance apart of more than 100 meters, one whistle only shall be used for giving maneuvering 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 not 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 maneuver, a vessel constrained by her draft, 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 paragraphs (a) or (b) of this Rule, sound at intervals of not more than 2 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 maneuver 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 towed the last vessel of the tow, if manned, shall at intervals of not more than 2 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 about 5 seconds. In a vessel of 100 meters or more length the bell shall be sounded in the forepart of the vessel and immediately after the ringing of the bell the gong shall be sounded rapidly for about 5 seconds in the after part of the vessel. A vessel at anchor may in addition sound three blasts in succession, namely one short, one prolonged and one short blast, 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 less than 12 meters 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.

(j) A pilot vessel when engaged on postage duty may in addition to the signals prescribed in paragraphs (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 authorized 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 in 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.

Section 5. Exemptions

Rule 38 Exemptions

Any vessel (or class of vessels) provided that she complies with the requirements of the International Regulations for Preventing Collisions at Sea, 1960, the keel of which is laid or which

is at a corresponding stage of construction before the entry into force of these Regulations may be exempted from compliance therewith as follows:

- (a) The installation of lights with ranges prescribed in Rule 22, until four years after the date of entry into force of these Regulations.
- (b) The installation of lights with color specifications as prescribed in Section 7 of Annex I to these Regulations, until four years after the date of entry into force of these Regulations.
- (c) The repositioning of lights as a result of conversion from imperial to metric units and rounding off measurement figures, permanent exemption.
- (d)
 - (i) The repositioning of masthead lights on vessels of less than 150 meters in length, resulting from the prescriptions of Section 3(a) of Annex I to these Regulations, permanent exemption.
 - (ii) The repositioning of masthead lights on vessels of 150 meters or more in length, resulting from the prescriptions of Section 3(a) of Annex I to these Regulations, until 9 years after the date of entry into force of these Regulations.
- (e) The repositioning of masthead lights resulting from the prescriptions of Section 2(b) of Annex I to these Regulations, until 9 years after the date of entry into force of these Regulations.
- (f) The repositioning of sidelights resulting from the prescriptions of Sections 2(9) and 3(b) of Annex I to these Regulations, until 9 years after the date of entry into force of these Regulations.
- (g) The requirements for sound signal appliances prescribed in Annex III to these Regulations, until 9 years after the date of entry into force of these Regulations.
- (h) The repositioning of all-round lights resulting from the prescription of Section 9(b) of Annex I to these Regulations, permanent exemption.

Annex I. Positioning and Technical Details of Lights and Shapes

Section 1. Definition

The term "height above the hull" means height above the uppermost continuous deck. This height shall be measured from the position vertically beneath the location of the light.

Section 2. Vertical positioning and spacing of lights

- (a) On a power-driven vessel of 20 meters or more in length the masthead lights shall be placed as follows:
 - (i) 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 meters, and, if the breadth of the

vessel exceeds 6 meters, then at a height above the hull not less than such breadth, so however that the light need not be placed at a greater height above the hull than 12 meters;

(ii) when two masthead lights are carried the after one shall be at least 4.5 meters vertically higher than the forward one.

(b) The vertical separation of masthead lights of power-driven vessels shall be such that in all normal conditions of trim the after light will be seen over and separate from the forward light at a distance of 1000 meters from the stem when viewed from sea level.

(c) The masthead light of a power-driven vessel of 12 meters but less than 20 meters in length shall be placed at a height above the gunwale of not less than 2.5 meters.

(d) A power-driven vessel of less than 12 meters in length may carry the uppermost light at a height of less than 2.5 meters above the gunwale. When however a masthead light is carried in addition to sidelights and sternlight or the all-round light prescribed in rule 23(c)(i) is carried in addition to sidelights, then such masthead light or all-round shall be carried at least 1 meter higher than the sidelights.

(e) One of the two or three masthead lights prescribed for a power-driven vessel when engaged in towing or pushing another vessel shall be placed in the same position as either the forward masthead light or the after masthead light; provided that, if carried on the after-mast, the lowest after masthead light shall be at least 4.5 meters vertically higher than the forward masthead light.

(f) (i) The masthead light or lights prescribed in Rule 23(a) shall be so placed as to be above and clear of all other lights and obstructions except as described in subparagraph (ii).

(ii) When it is impracticable to carry the all-round lights prescribed by Rule 27(b)(i) or Rule 28 below the masthead lights, they may be carried above the after masthead light(s) or vertically in between the forward masthead light(s) and after masthead light(s), provided that in the latter case the requirement of Section 3(c) of this Annex shall be complied with.

(g) The sidelights of a power-driven vessel shall be placed at a height above the hull not greater than three quarters of that of the forward masthead light. They shall not be so low as to be interfered with by deck lights.

(h) The sidelights, if in a combined lantern and carried on a power-driven vessel of less than 20 meters in length, shall be placed not less than 1 meter below the masthead light.

(i) When the Rules prescribe two or three lights to be carried in a vertical line, they shall be spaced as follows:

(i) on a vessel of 20 meters in length or more such lights shall be spaced not less than 2 meters apart, and the lowest of these lights shall, except where towing light is required, be placed not less at a height of not less 4 meters above the hull;

(ii) on a vessel of less than 20 meters in length such lights shall be spaced not less than 1 meter apart and the lowest of these lights shall, except where towing light is required, be placed at a height of not less than 2 meters above the gunwale;

(iii) when three lights are carried they shall be equally spaced.

(j) The lower of the two all-round lights prescribed for a vessel when engaged in fishing shall be at a height above the sidelights not less than twice the distance between the two vertical lights.

(k) The forward anchor light prescribed in Rule 30(a)(i), when two are carried, shall not be less than 4.5 meters above the after one. On a vessel of 50 meters or more in length this forward anchor light shall be placed at a height of not less than 6 meters above the hull.

Section 3. Horizontal positioning and spacing of lights

(a) When two masthead lights are prescribed for a power-driven vessel, the horizontal distance between them shall not be less than one half of the length of the vessel but need not be more than 100 meters. The forward light shall be placed not more than 100 meters. The forward light shall be placed not more than one quarter of the length of the vessel from the stem.

(b) On a power-driven vessel of 20 meters or more in length the sidelights shall not be placed in front of the forward masthead lights. They shall be placed at or near the side of the vessel.

(c) When the lights prescribed in Rule 27(b)(i) or Rule 28 are placed vertically between the forward masthead light(s) and the after masthead light(s) these all-round lights shall be placed at a horizontal distance of not less than 2 meters from the fore and aft centerline of the vessel in the athwartship direction.

(d) When only one masthead light is prescribed for a power driven vessel, this light shall be exhibited forward of amidships; except that a vessel of less than 20 meters in length need not exhibit this light forward of amidships but shall exhibit it as far forward as is practicable.

Section 4. Details of location of direction-indicating lights for fishing vessels, dredgers and vessels engaged in underwater operations.

(a) The light indicating the direction of the outlying gear from a vessel engaged in fishing as prescribed in Rule 26(c)(ii) shall be placed at a horizontal distance of not less than 2 meters and not more than 6 meters away from the two all-round white light prescribed in Rule 26(c)(i) and not lower than the sidelights.

(b) The lights and shapes on a vessel engaged in dredging or underwater operations to indicate the obstructed side and/or the side on which it is safe to pass, as prescribed in Rule 27(d)(i) and (ii), shall be placed at the maximum practical horizontal distance, but in no case less than 2 meters, from the lights or shapes prescribed in Rule 27(b)(i) and (ii). In no case shall the upper of these lights or shapes be at greater height than the lower of the three lights or shapes prescribed in Rule 27(b)(i) and (ii).

Section 5. Screens for sidelights

The sidelights of vessels of 20 meters or more in length shall be fitted with inboard screens painted matt black, and meeting the requirements of Section 9 of this Annex, shall be fitted with inboard matt black screens. With a combined lantern, using a single vertical filament and a very narrow division between the green and red sections, external screens need not be fitted.

Section 6. Shapes

(a) Shapes shall be black and of the following sizes:

- (i) a ball shall have a diameter of not less than 0.6 meter;
- (ii) a cone shall have a base diameter of not less than 0.6 meter and a height equal to its diameter;
- (iii) a cylinder shall have a diameter of at least 0.6 meter and a height of twice its diameter; .
- (iv) a diamond shape shall consist of two cones as defined in (ii) above having a common base.

(b) The vertical distance between shapes shall be at least 1.5 meter.

(c) In a vessel of less than 20 meters in length shapes of lesser dimensions but commensurate with the size of the vessel may be used and the distance apart may be correspondingly reduced.

Section 7. Color specification of lights

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

The boundaries of the area for each color are given by indicating the corner coordinates, which are as follows:

- (i) 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

(ii) Green:
 x 0.028 0.009 0.300 0.203
 y 0.385 0.723 0.511 0.356

(iii) Red:
 x 0.680 0.660 0.735 0.721
 y 0.320 0.320 0.265 0.259

(iv) Yellow:
 x 0.612 0.618 0.575 0.575
 y 0.382 0.382 0.425 0.406

Section 8. Intensity of lights

(a) The minimum luminous intensity of lights shall 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 threshold factor 2×10^{-7} lux, D is range of visibility (luminous range) of the light in nautical miles, K is atmospheric transmissivity. For prescribed lights the value of K shall be 0.8, corresponding to a meteorological visibility of approximately 13 nautical miles.

(b) A selection of figures derived from the formula is given in the following table:

Range of visibility (luminous range) of light in nautical miles	Luminous intensity of light in candelas for K = 0.8
D	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 shall not be achieved by a variable control of the luminous intensity.

Section 9. Horizontal sectors

(a) (i) In the forward direction, sidelights as fitted on the vessel shall show the minimum required intensities. The intensities shall decrease to reach practical cut-off between 1 degree and 3 degrees outside the prescribed sectors.

(ii) For sternlights and masthead lights and at 22.5 degrees abaft the beam for

sidelights, the minimum required intensities shall be maintained over the arc of the horizon up to 5 degrees within the limits of the sectors prescribed in Rule 21. From 5 degrees within the prescribed sectors the intensity may decrease by 50 percent up to the prescribed limits; it shall decrease steadily to reach practical cut-off at not more than 5 degrees outside the prescribed sectors.

- (b) (i) All-round lights shall be so located as not to be obscured by masts, topmasts or structures within angular sectors of more than 6 degrees, except anchor lights prescribed in Rule 30, which need not be placed at an impracticable height above the hull.

(ii) If it is impractical to comply with paragraph (b)(i) of these section by exhibiting only one all-round light, two all-round lights shall be used suitably positioned or screened so that they appear, as far as practicable, as one light at a distance of one mile."

Section 10. Vertical Sectors

(a) The vertical sectors of electric lights as fitted, with the exception of lights on sailing vessels underway shall ensure that:

(i) at least the required minimum intensity is maintained at all angles from 5 degrees below the horizontal;

(ii) at least 60 percent of the required minimum intensity is maintained from 7.5 degrees below the horizontal.

(b) In the case of sailing vessels underway the vertical sectors of electric lights as fitted shall ensure that:

(i) at least the required minimum intensity is maintained at all angles from 5 degrees above to 5 degrees below the horizontal;

(ii) at least 50 percent of the required minimum intensity is maintained from 25 degrees above to 25 degrees below the horizontal.

(c) In the case of lights other than electric these specifications shall be met as closely as possible.

Section 11. Intensity of non-electric lights

Non-electric lights shall so far as practicable comply with the minimum intensities, as specified in the Table given in Section 8 of this Annex.

Section 12. Maneuvering light

Notwithstanding the provisions of paragraph 2(f) of this Annex the maneuvering light described in Rule 34(b) shall be placed in the same fore and aft vertical plane as the masthead light or lights and, where practicable, at a minimum height of 2 meters vertically above the forward masthead light, provided that it shall be carried not less than 2 meters vertically above or below the after masthead light. On a vessel where only one masthead light is carried the maneuvering light, if fitted, shall be carried where it can best be seen, not less than 2 meters vertically apart from the masthead light.

Section 13. High Speed Craft

The masthead light of high speed craft with a length to breadth ratio of less than 3.0 may be placed at a height related to the breadth of the craft lower than that prescribed in paragraph 2(a)(i) of this annex, provided that the base angle of the isosceles triangles formed by the sidelights and masthead light, when seen in end elevation, is not less than 27 degrees.

Section 14. Approval

The construction of lights and shapes and the installation of lights on board the vessel shall be to the satisfaction of the appropriate authority of the State whose flag the vessel is entitled to fly.

Annex II. Additional Signals for Fishing Vessels Fishing in Close Proximity

Section 1. General

The lights mentioned herein shall, if exhibited in pursuance of Rule 26(d), be placed where they can best be seen. They shall be at least 0.9 meter apart but a lower level than lights prescribed in Rule 26(b)(i) and (c)(i). The lights shall be visible all round the horizon at a distance of at least 1 mile but at a lesser distance than the lights prescribed by these Rules for fishing vessels.

Section 2. Signals for trawlers

(a) Vessels of 20 meters or more in length when engaged in trawling, whether using demersal or pelagic gear, may exhibit:

- (i) when shooting their nets: two white lights in a vertical line;
- (ii) when hauling their nets: one white light over one red light in a vertical line;
- (iii) when the nets has come fast upon an obstruction: two red lights in a vertical line.

(b) Each vessel of 20 meters or more in length engaged in pair trawling may exhibit:

- (i) by night, a searchlight directed forward and in the direction of the other vessel of the pair;

- (ii) when shooting or hauling their nets or when their nets have come fast upon an obstruction, the lights prescribed in 2(a) above.

Section 3. Signals for purse seiners

Vessels engaged in fishing with purse seine gear may exhibit two yellow lights in a vertical line. These lights shall flash alternately every second and with equal light and occultation duration. These lights may be exhibited only when the vessel is hampered by its fishing gear.

Annex 111. Technical Details of Sound Signal Appliances

Section 1. Whistles

(a) Frequencies and range of audibility. The fundamental frequency of the signal shall lie within the range 70-700 Hz. The range of audibility of the signal from a whistle shall be determined by those frequencies, which may include the fundamental and/or one or more higher frequencies, which lie within the range 180-700 Hz (± 1 percent) and which provide the sound pressure levels specified in paragraph 1(c) below.

(b) Limits of fundamental frequencies. To ensure a wide variety of whistle characteristics, the fundamental frequency of a whistle shall be between the following limits:

- (i) 70-200 Hz, for a vessel 200 meters or more in length;
- (ii) 130-350 Hz, for a vessel 75 meters but less than 200 meters in length;
- (iii) 250-700 Hz, for a vessel less than 75 meters in length.

(c) Sound signal intensity and range of audibility. A whistle fitted in a vessel shall provide, in the direction of maximum intensity of the whistle and at a distance of 1 meter from it, a sound pressure level in at least one 1/3-octave band within the range of frequencies 180-700 Hz (± 1 percent) of not less than the appropriate figure given in the table below.

Length of vessel in meters	1/3-octave band level at 1 meter in dB referred to 2×10^{-5} N/m ²	Audibility range in nautical miles
200 or more	143	2
75 but less than 200	138	1.5
20 but less than 75	130	1
Less than 20	120	0.5

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

(d) Directional properties. The sound pressure level of a directional whistle shall be not more than 4 dB 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 shall be not more than 10dB 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 shall be measured in that one-third octave band which determines the audibility range.

(e) Positioning of whistles. When a directional whistle is to be used as the only whistle on a vessel, it shall be installed with its maximum intensity directed straight ahead.

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

(f) Fitting of more than one whistle. If whistles are fitted at a distance apart of more than 100 meters, it shall be so arranged that they are not sounded simultaneously.

(g) Combined whistle systems. If due to the presence of obstructions the sound field of a single whistle or of one of the whistles referred to in paragraph 1(f) above is likely to have a zone of greatly reduced signal level, it is recommended that a combined whistle system be fitted so as to overcome this reduction. For the purposes of the Rules a combined whistle system is to be regarded as a single whistle. The whistles of a combined system shall be located at a distance apart of not more than 100 meters and arranged to be sounded simultaneously. The frequency of any one whistle shall differ from those of the others by at least 10 Hz.

Section 2. Bell or Gong

(a) Intensity of signal. A bell or gong, or other device having similar sound characteristics shall produce a sound pressure level of not less than 110 dB at a distance of 1 meter from it.

(b) Construction. Bells and gongs shall be made of corrosion-resistant material and designed to give a clear tone. The diameter of the mouth of the bell shall be not less than 300 mm for vessels of 20 meters or more in length, and shall be not less than 200 mm for vessels of 12 meters or more but of less than 20 meters in length. Where practicable, a power-driven bell striker is recommended to ensure constant force but manual operation shall be possible. The mass of the striker shall be not less than 3 percent of the mass of the bell.

Section 3. Approval

The construction of sound signal appliances, their performance and their installation on board the vessel shall be to the satisfaction of the appropriate authority of the State whose flag the vessel

is entitled to fly.

Annex IV. Distress Signals

Section 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 radiotelegraphy or by any other signaling 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 anything resembling a ball;
- (h) flames on the vessel (as 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-colored smoke;
- (k) slowly and repeatedly raising and lowering arms outstretched to each side;
- (l) the radiotelephone alarm signal;
- (m) the radiotelephone alarm signal;
- (n) signals transmitted by emergency position-indicating radio beacons
- (o) approved signals transmitted by radiocommunication systems, including survival craft radar transponders.

Section 2. The use or exhibition of any of the foregoing signals except for the purpose of indicating distress and need of assistance and the use of other signals which may be confused with any of the above signals is prohibited.

Section 3. Attention is to drawn to the relevant sections of the International Code Signals, the Merchant Ship Search and Rescue Manual and the following signals:

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

(b) a dye marker.

Requirements for New Registration Application
(Class 1 Motor Vessel Operating within Palau Territorial Waters)

Documents

- Sale Agreement or Ownership Certificate
- Bill of Sale
- Certificate of Inspection of former registering country
- Certificate of Nationality (or Registry) of the former registering country
- Builder's Certificate
- Class Certificate
- Trim and Stability Booklet (if any)
- General Arrangement Plan
- Recent photo of the vessel

Safety Equipment

- White masthead light
- Green and Red Sidelights
- White stern light
- All-around white anchor light
- Whistle or horn
- One Personal Flotation Device (life jacket) for each person on board (Passenger vessels only: plus additional 5% of total number of people on board.
- One life buoy with 90' of line, one self-igniting lamp and one self-activating smoke signal attached.
- At least one bilge pump and one spare pump.
- Life raft(s) with sufficient capacity for all persons carried on board.
- 3 Red hand distress flares
- 1 High Altitude Parachute signals or High Altitude star rocket signals
- 1 Self-igniting smoke signals
- 1 Self-Igniting lamps
- 1 set of International Code Signal Flags
- Two B-II Fire Extinguishers

Manning

- Captain bringing the vessel to Palau must be a properly licensed master for appropriate Gross Tonnage

Requirements for New Registration Application of *Fishing Vessels*

Documents

- Sale Agreement or Ownership Certificate
- Bill of Sale
- Certificate of Inspection of former registering country
- Certificate of Nationality (or Registry) of the former registering country
- Builder's Certificate
- Class Certificate
- Trim and Stability Booklet (if any)
- General Arrangement Plan
- Recent photo of the vessel

Safety Equipment

- White masthead light
- Green and Red Sidelights
- White stern light
- All-around white anchor light
- Whistle or horn
- One Personal Flotation Device (life jacket) for each person on board, plus additional 5% of total number of people on board
- Two life buoys with 90' of line, one self-igniting lamp and one self-activating smoke signal attached
- At least one bilge pump and one spare pump
- Life raft(s) with sufficient capacity for all persons carried on board.
- 6 Red hand distress flares
- 2 High Altitude Parachute or star rocket signals
- 1 Self-igniting smoke signals
- 2 Self-Igniting lamps
- 1 Emergency Position-Indicating Radio Beacon (EPIRB), if operating in EEZ
- Two B-II Fire Extinguishers

Manning

- Captain bringing the vessel to Palau must hold a proper competency certificate master for appropriate Gross Tonnage

Requirements for New Registration Application
(Class 1 Motor Vessel Operating on *International Voyages*)

Documents

- Sale Agreement or Ownership Certificate
- Bill of Sale
- Certificate of Inspection of former registering country
- Certificate of Nationality (or Registry) of the former registering country
- Builder's Certificate
- Class Certificate
- Trim and Stability Booklet (if any)
- General Arrangement Plan
- Recent photo of the vessel

Safety Equipment

- White masthead light
- Green and Red Sidelights
- White stern light
- All-around white anchor light
- Whistle or horn
- One Personal Flotation Device (life jacket) for each person on board (Passenger vessels only: plus additional 5% of total number of people on board.
- Two life buoys with 90' of line, one self-igniting lamp and one self-activating smoke signal attached.
- At least one bilge pump and one spare pump.
- Life raft(s) with sufficient capacity for all persons carried on board
- 12 Red hand distress flares
- 2 High Altitude Parachute signals
- 2 High Altitude star rocket signals
- 3 Self-igniting smoke signals
- 3 Self-Igniting lamps
- 1 Emergency Position-Indicating Radio Beacon (EPIRB)
- 1 set of International Code Signal Flags
- At least two B-II Fire Extinguishers

Manning

- Captain bringing the vessel to Palau must be a properly licensed master for appropriate Gross Tonnage
- At least fourth assistant engineer for appropriate horsepower

Revised 7/12/00