THE INTERNATIONAL MERCHANT MARINE REGISTRY OF BELIZE
IMMARBE

IMMARBE'S Code of Standards for Yachts of less than 24m, in commercial or private use (The Small Yacht Code)

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IMMARBE'S CODE OF STANDARDS FOR YACHTS OF LESS THAN 24 METRES, IN COMMERCIAL OR PRIVATE USE (THE SMALL YACHT CODE)

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PART A - INTRODUCTION

1. General

1.1 IMMARBE has produced this Code in order to address perceived gaps in the international regulatory regime which prescribes Merchant Ship Safety Standards. At present, the standards are not adequately defined for yachts, as pleasure vessels and the various categories defined by use, size and operational range. Consequently, with the assistance of the contributors listed in Annex 4, IMMARBE has developed the following Codes:

- The Code of Standards for Yachts of 24 m in Length, or above and 500 GT or more (Super Yacht Code)
- The Code of Standards for Yachts of 24 m or less than 500 GT (Large Yacht Code)
- The Code of Standards for Yachts of less than 24 m (Small Yacht Code)

1.2 By IMMARBE's definitions a yacht may fall in one of two categories: a commercial yacht or a private yacht.

1.3 This document introduces the Code of Standards for yachts of less than 24m, in commercial or private use. It was developed as an enhancement of similar Codes, providing clarifications and expansion in areas where it is deemed necessary. The standards adopted are considered to be at least equivalent in their effect to those required by all applicable international Conventions. For the above mentioned reasons, we consider that this Code prescribes enhanced standards for this industry.

1.3.1 Scope

This Code addresses enhanced standards for the construction and operation of motor or sailing yachts of over 10m and under 24m in load line length, in commercial or private use, which do not carry cargo or more than 12 passengers on a voyage or excursion and are registered with the International Merchant Marine Registry of Belize (IMMARBE), hereinafter referred to as the "Administration". Compliance with this Code is mandatory for this category of commercial yacht. However, the Administration strongly encourages its application to private yachts of this size and may require compliance therewith where it deems it to be appropriate.

1.3.2 Technical Standards

These are derived from:

- The relevant international Conventions referred to in Annex 3 or equivalent standards where it is not reasonable or practicable to comply therewith.
- IMMARBE's own technical standards. These are contained in Part B, Sections 4-29.

1.3.3 Administrative Standards

- These are contained in Part C, Sections 1-9.
- Upon satisfactory completion of the surveys and inspections in compliance with the standards required by this Code, a yacht will be issued with the corresponding certification required by international Conventions and IMMARBE's regulations/administrative procedures.
- The requirements for yacht registration under Section 1 include important provisions for insurance, both in respect of hull and machinery of the yacht itself and other equipment carried thereon e.g. jet skis etc., third party liability including all persons who are part of the yacht's complement onboard and covering any sporting activities in which they may engage. These are mandatory for yachts in commercial use and highly recommended for those in private use.
- In the interests of safety and compliance with any applicable national, regional and international regulations, as well as the protection of the environment, we have developed basic Guidelines for Sporting and Leisure activities thus highlighting the importance of conducting such activities in a safe and compliant manner. These Guidelines referred to in Part C Section 10 are not intended to be comprehensive but give basic guidance for some of these activities e.g. sport fishing, scuba diving and snorkeling, para-sailing, jet skis, water skiing, alchoholic drinks, barbecues.

N.B. In determining the appropriate standards, this Code encourages the use of risk assessment by appropriately qualified and experienced experts in the relevant field. Also, the Administration may approve equivalent standards and/or vary the standards and/or grant exemptions wherever it considers appropriate to do so in accordance with the provisions of Part A Section 3 and Part C Section 5.

1.3.4 Annex

Reference documents are contained in the Annex Sections 1-4.

1.4 It is recognized that this Code may need to be revised from time to time in the light of the experience gained in its application and new developments in the industry. IMMARBE will publish such revisions on its website and will also notify the owners, operators and the managers of its registered yachts accordingly.

1.5 The attention of owners, operators, managers and Masters is drawn to the fact that in addition to the obligation to comply with this Code and IMMARBE's/ Belize's maritime laws/regulations, they also need to adhere at all times to any local authority licensing and any other regulatory requirements which are applicable in the area of operation as well as to good seamanship practice.

1.6 Wherever this Code requires equipment to be manufactured to a recognized standard, the Administration may accept existing equipment which can be shown to be of an equivalent standard which does not increase the risk to the yacht, its crew and passengers. However, when such equipment is replaced, the replacement should conform to the standard required by the Code.

1.7 IMMARBE has notified the International Maritime Organisation of this Code and its application to pleasure vessels engaged in trade as an equivalent arrangement under the provisions of Article 8 of the International Convention on Load Lines 1966, Regulation I-5 of the International Convention on Safety of Life at Sea, and Article 9 of the International Convention on Standards of Training Certification and Watchkeeping for Seafarers 1978 as amended.

1.8 IMMARBE's Quality Management System has been certified by an accredited body of the United States' ANSI - ASQ National Accreditation Board (ANAB) in accordance with the Quality System Standard ISO 9001-2000. The scope of IMMARBE's certification encompasses ship registration, endorsement certification of seafarers, statutory certification and fishing vessel administration. The provisions of IMMARBE's Codes of Standards for Yachts have been incorporated into its Quality Management System.

1.9 Hyperlinks have been used to assist users to locate relevant parts of related legislation. Due to the manner in which the legislation is produced, users may have move down the page a short way to the specific regulation. The full text of the original documents should be studied before making any decision based on those regulations.

2. Definitions

Note – where a definition is not given within this Code, guidance should be taken from meanings given within the International Conventions.

"Administration" with regard to this Code means the International Merchant Marine Registry of Belize, hereinafter referred to as "IMMARBE" or any organization or person formally authorized or appointed by IMMARBE to represent or act on its behalf.

“Annual Survey” means a general or partial examination of the yacht, its machinery, fittings and equipment, as far as can readily be seen, to ascertain that it has been satisfactorily maintained as required by the Code and that the arrangements, fittings and equipment provided are as documented in the yacht’s Compliance Certificate.

"Approved" in respect to materials or equipment means approved by the Administration or approved by an Administration or organisation which is formally recognised by the Administration.

"Authorised surveyor" means a surveyor who by reason of professional qualifications, practical experience and expertise is authorised by the Administration to carry out the survey required for the vessel. A list of such surveyors is to be found on www.immarbe.com/yachts/authorizedsurveyors.html.

"Buoyant lifeline" means a line complying with the requirements of the IMO International Life-Saving Appliances Code.

"Cargo" means an item(s) of value that is carried from one place and discharged at another place and for which either a charge or no charge is made and is not for use exclusively onboard the vessel.

“Code” means IMMARBE's Code of Standards for Yachts of less than 24m, in commercial or private use (Small Yacht Code).

“Commercial yacht” means a yacht which is engaged in trade, commerce, on charter or carrying passengers for hire that is registered and is described on the Certificate of Registry as a commercial yacht.

“Compliance Survey” means an examination by an Authorised Surveyor, to ascertain that the yacht’s structure, machinery, equipment and fittings are in substantial compliance with the requirements of the Code. At least part of the examination should be conducted when the yacht is out of the water.

"Control stations" are those spaces in which the yacht's radio or main navigating equipment or the emergency source of power are located or where the fire recording or fire control equipment is centralised.

“Date of expiry” in relation to pyrotechnics and self-activating smoke signals means a date within three (3) years from the date of manufacture of that product.

“Declared Area(s) of Operation” are those areas designated by the owner or manager to which the yacht would be limited for registration and safety certification purposes.

"Efficient" in relation to a fitting, piece of equipment or material means that all reasonable and practicable measures have been taken to ensure that it is suitable for the purpose for which it is intended to be used.

"Embarkation ladder" means a ladder complying with the requirements of the IMO International Life-Saving Appliances Code.

“Emergency condition” is a condition under which any services needed for normal operational and habitable conditions are not in working order due to failure of the main source of electrical power.

"Emergency source of electrical power" is a source of electrical power, intended to supply the emergency switchboard in the event of failure of the supply from the main source of electrical power.

"Emergency switchboard" is a switchboard which in the event of failure of the main electrical power supply system is directly supplied by the emergency source of electrical power or the transitional source of emergency power and is intended to distribute electrical energy to the emergency services.

"EPIRB" means a satellite emergency position-indicating radio beacon, being an earth station in the mobile-satellite service, the emissions of which are intended to facilitate search and rescue operations, complying with performance standards adopted by the IMO contained in either Resolution A.810(19) or Resolution A.812(19) and Resolution A.662(16), or any Resolution amending or replacing these from time to time and which is considered by the Administration to be relevant, and is capable of:

(a) floating free and automatically activating if the ship sinks,
(b) being manually activated; and
(c) being carried by one person.

"Existing vessel" means any vessel, the keel of which was laid or the construction or lay up was started before the 1st June 2008.

“Favourable weather” means wind, sea and visibility or any other conditions existing throughout a voyage or excursion that are deemed by the skipper to be safe for a yacht to operate within the limits applied to it.

"Float-free launching" means that method of launching a liferaft whereby the liferaft is automatically released from a sinking ship and is ready for use, complying with the requirements of the IMO International Life-Saving Appliances Code.

"Freeboard" has the meaning given in Annex I of ICLL. The freeboard assigned is the distance measured vertically downwards amidships from the upper edge of the deck line to the upper edge of the related load line.

"Freeboard deck" has the meaning given in Annex I of ICLL. The freeboard deck is normally the uppermost complete deck exposed to the weather and sea, which has permanent means of closing all openings in the weather part thereof, and below which all openings in the sides of the yacht are fitted with permanent means of watertight closing.

(a) In a yacht having a discontinuous freeboard deck, the lowest line of the exposed deck and the continuation of that line parallel to the upper part of the deck is taken as the freeboard deck.

(b) At the option of the owner and subject to the approval of the Administration, a lower deck may be designated as the freeboard deck provided it is a complete and permanent deck continuous in a fore and aft direction at least between the machinery space and peak bulkheads and continuous athwart ships.

(c) When a lower deck is designated as the freeboard deck, that part of the hull which extends above the freeboard deck is treated as a superstructure so far as concerns the application of the conditions of assignment and the calculation of freeboard. It is from this deck that the freeboard is calculated.

"Garbage" means all kinds of victual, domestic and operational waste excluding fresh fish and parts thereof, generated during the normal operation of the vessel and liable to be disposed of continuously or periodically, except sewage originating from vessels.

"Hazardous space" means a space or compartment in which combustible or explosive gases or vapours are liable to accumulate in dangerous concentrations.

“Hours of work” are defined as those when a seafarer is at his/her employer’s disposal and carrying out his/her duties or activities.

"ICLL" means the International Convention on Load Lines, 1966, as amended.

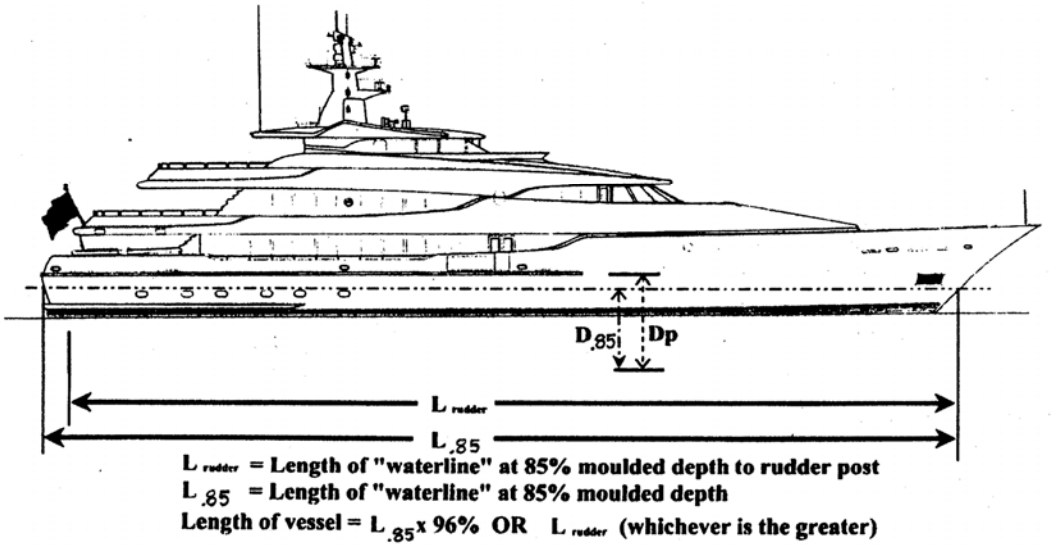
"IMO" means the International Maritime Organisation, a specialised agency of the United Nations devoted to maritime affairs.

"Inflatable lifejacket" means a lifejacket complying with the requirements of the IMO International Life-Saving Appliances Code.

"Instructions for on-board maintenance" means the instructions complying with the requirements of SOLAS III/Part B – Life Saving Appliances and Arrangements, Regulation 36.

"Launching appliance" means a provision complying with the requirements of the IMO International Life-Saving Appliances Code for safely transferring a lifeboat, rescue boat, or liferaft respectively, from its stowed position to the water and recovery where applicable.

"Length" and “Load Line Length” mean 96% of the total length on a waterline of a ship at 85% of the least moulded depth measured from the top of the keel, or the length from the fore-side of the stem to the axis of the rudder stock on that waterline, if that be greater. In ships designed with a rake of keel the waterline on which this is measured shall be parallel to the designed waterline.



"Lifebuoy" means a lifebuoy complying with the requirements of the IMO International Life-Saving Appliances Code.

"Lifejacket" means a lifejacket complying with the requirements of the IMO International Life-Saving Appliances Code.

"Liferaft" means a liferaft complying with the requirements of the IMO International Life-Saving Appliances Code.

"Line throwing appliance" means an appliance complying with the requirements of the IMO International Life-Saving Appliances Code.

"Low flame spread" means that the surface thus described will adequately restrict the spread of flame, this being determined to the satisfaction of the Administration by an established procedure.

“LSA Code” means the Life-Saving Appliances Code.

"Machinery spaces" are all machinery spaces of category A and all other spaces containing propelling machinery, boilers, oil fuel units, steam and internal combustion engines, generators and major electrical machinery, oil filling stations, refrigerating, stabilizing, ventilation and air conditioning machinery, and similar spaces, and trunks to such spaces.

"Machinery spaces of category A" are those spaces and trunks to such spaces which contain:

(a) internal combustion machinery used for main propulsion; or

(b) internal combustion machinery used for purposes other than main propulsion where such machinery has in the aggregate a total power output of not less then 375Kw; or

(c) any oil-fired boiler or oil fuel unit;

“Main generating station” is the space in which the main source of electrical power is situated.

"Main source of electrical power" is a source intended to supply electrical power to the main switchboard for distribution to all services necessary for maintaining the ship in normal operation and habitable condition.

“Main steering gear” is the machinery, rudder actuators, steering gear power units, if any, and ancillary equipment and the means of applying torque to the rudder stock (e.g. tiller or quadrant) necessary for effecting movement of the rudder for the purpose of steering the yacht under normal service conditions.

"Main switchboard" is a switchboard which is directly supplied by the main source of electrical power and is intended to distribute electrical energy to the yacht's services.

"MARPOL" means the International Convention for the Prevention of Pollution from Ships, 1973, as amended.

“Maximum ahead service speed” for the purpose of steering gear and rudder stock and pintle design, is the maximum contractual speed of the yacht, in knots.

"Merchant Shipping Notices" are directives issued by IMMARBE to all parties concerned in order to give full effect to the implementation of the provisions of international instruments ratified, acceded or adhered to by Belize and other applicable national laws and regulations.

"Mile" means a nautical mile of 1852 metres.

"Motor yacht" means a yacht, whether a commercial yacht or a private yacht, which is described in the register and on the certificate of registry as such, and which has a sole means of propulsion either one or more power units.

"Multihull yacht" means any yacht, whether a commercial yacht or a private yacht, which in any normally achievable operating trim or heel angle, has a rigid hull structure which penetrates the surface of the sea over more than one separate or discrete area.

"New yacht" means a yacht to which this Code applies, the keel of which was laid or the construction or lay up was started on or after the 1st June 2008.

"Not readily ignitable" means that the surface thus described will not continue to burn for more than 20 seconds after removal of a suitable impinging test flame.

“Operator" means person(s) or a company other than the owner, or the immediate family of the owner that is a bareboat/demise charterer or is otherwise paying the expenses for the operation of the yacht either wholly or in part.

"Owner(s)/Managers" means the registered owner(s) or the managers authorized to act on behalf of the registered owner(s) or of the Operator, as the case may be.

"Passenger" means any person carried in a ship except:

(a) a person employed or engaged in any capacity on board the ship on the business of the ship.
(b) a person on board the ship either in pursuance of the obligation laid upon the master to carry shipwrecked, distressed or other persons, or by reason of any circumstances that neither the master nor the owner nor the charterer (if any) could have prevented; and
(c) a child under one year of age;

"a person employed or engaged in any capacity on board the vessel on the business of the vessel" may reasonably include:

1 bona-fide members of the crew over the minimum school leaving age (about 16 years) who are properly employed on the operation of the vessel;
2 person(s) employed either by the owner or the charterer in connection with business interests and providing a service available to all passengers; and
3 person(s) employed either by the owner or the charterer in relation to social activities on board and providing a service available to all passengers.

With reference to 2 and 3 above, such persons should be included in the crew list required for the vessel, should have received on board familiarisation training as required by STCW, and should not be assigned duties on the muster list.

"Passenger ship" means a ship carrying more than 12 passengers.

"Person" means a person over the age of one year.

“Private Use” means that the yacht is used on a private voyage or excursion, and during such use is not engaged in trade by transporting merchandise or carrying passengers for reward or remuneration (other than as a contribution to the actual cost of the yacht or its operation for the period of the voyage or excursion) or gain, and is not offered for commercial charter operations or for public use;

"Private yacht" means:

(a) any vessel which at the time it is being used is:
    (i) (aa) in the case of a vessel wholly owned by an individual or individuals, used only for the sport or pleasure of the owner or the immediate family or friends of the owner; or
        (bb) in the case of a vessel owned by a body corporate, used only for sport or pleasure and on which the persons on board are employees or officers of the body corporate, or their immediate family or friends; and
    (ii) on a voyage or excursion which is one for which the owner does not receive money for or in connection with operating the vessel or carrying any person, other than as a contribution to the direct expenses of the operation of the vessel incurred during the voyage or excursion; or
(b) any vessel wholly owned by or on behalf of a members' club formed for the purpose of sport or pleasure which, at the time it is being used, is used only for the sport or pleasure of members of that club or their immediate family, and for the use of which any charges levied are paid into club funds and applied for the general use of the club; and
(c) in the case of any vessel referred to in paragraphs (a) or (b) above no other payments are made by or on behalf of users of the vessel, other than by the owner.

In this definition "immediate family" means in relation to an individual, the husband or wife of the individual, and a relative of the individual or the individual's husband or wife; and "relative" means brother, sister, ancestor or lineal descendant;

"Position 1" means upon exposed freeboard and raised quarter decks, and upon exposed superstructure decks situated forward of a point located a quarter of the yacht's length from the forward perpendicular.

"Position 2" means upon exposed superstructure decks situated abaft a quarter of the yacht's length from the forward perpendicular.

“Power actuating system” is the hydraulic equipment provided for supplying power to turn the rudder stock, comprising a steering gear power unit or units, together with the associated pipes and fittings, and a rudder actuator. The power actuating systems may share common mechanical components, i.e., tiller, quadrant and rudder stock, or components serving the same purpose.

“Private Use” means that the yacht is used on a private voyage or excursion, and during such use is not engaged in trade by transporting merchandise or carrying passengers for reward or remuneration (other than as a contribution to the actual cost of the yacht or its operation for the period of the voyage or excursion) or gain, and is not offered for commercial charter operations or for public use.

"Radar transponder" means a radar transponder for use in survival craft to facilitate location of survival craft in search and rescue operations.

"Recess" means an indentation or depression in a deck and which is surrounded by the deck and has no boundary common with the shell of the vessel.

“Recognised organisation” means an organization authorized by the Administration to perform statutory survey work on its behalf in accordance with IMO Resolution A.739(18) and A.789(19). A List of such Recognized Organizations is shown on www.immarbe.com/yachts/recognizedorganizations.html.

"Rescue boat" means a boat complying with the requirements of the IMO International Life-Saving Appliances Code and designed to rescue persons in distress and for marshalling liferafts.

"Retro-reflective material" means a material which reflects in the opposite direction a beam of light directed on it.

“Rocket parachute flare" means a pyrotechnic signal complying with the requirements of the IMO International Life-Saving Appliances Code.

"Safe haven" means a harbour or shelter of any kind which affords entry, subject to prudence in the weather conditions prevailing, and protection from the force of the weather.

"Sailing yacht" means a vessel designed to carry sail, whether as a sole means of propulsion or as a supplementary means.

“Sail training yacht” means a sailing yacht that at the time it is being used is being used either:

(a) to provide instruction in the principles of responsibility, resourcefulness, loyalty and team endeavor and to advance education in the art of seamanship; or
(b) to provide instruction in navigation and seamanship for yachtsmen

“Side scuttle” means an ISO standardized type of an opening hinged or non-opening round yacht’s window with or without deadlight (ISO 6345:1990).

“Seafarer", is defined as a person employed or engaged in any capacity on the yacht and should be taken to mean any person employed either directly by a owner/operator or through a manning agency, whose usual place of work is on the yacht and includes the master, officers, crew members, and catering, salon and hotel staff.

"Self-activating smoke signal" means a signal complying with the requirements of the IMO International Life-Saving Appliances Code.

"Self-igniting light" means a light complying with the requirements of the IMO International Life-Saving Appliances Code.

"SOLAS" means the International Convention of Safety of Life at Sea, 1974, as amended.

"SOLAS A pack" means a liferaft emergency pack complying with the requirements of the IMO International Life-Saving Appliances Code.

"SOLAS B pack" means a liferaft emergency pack complying with the requirements of the IMO International Life-Saving Appliances Code.

"Standard fire test" means a test in which specimens of the relevant bulkheads, decks or other constructions are exposed in a test furnace by a specified test method in accordance with the IMO Fire Test Procedures Code.

"Steering gear control system" is the equipment by which orders are transmitted from the navigating bridge to the steering gear power units. Steering gear control systems comprise transmitters, receivers, hydraulic control pumps and their associated motors, motor controllers, piping and cables.

"Steering gear power unit" is:
(a) in the case of electric steering gear, an electric motor and its associated electrical equipment;
(b) in the case of electrohydraulic steering gear, an electric motor and its associated electrical equipment and connected pump;
(c) in the case of other hydraulic steering gear, a driving engine and connected pump.

"Superstructure" has the meaning given in Annex I to ICLL.

"Survival craft" means a craft capable of sustaining the lives of persons in distress from the time of abandoning the ship.

"Trainee" A trainee SHALL be engaged for the sole purpose of:
1. (a) Obtaining instruction in the principles of responsibility, resourcefulness, loyalty and team endeavour; and/or
   (b) Instruction in navigation and seamanship, marine engineering or other shipboard related skills.
2. Be considered to form part of a 'trainee voyage crew'; and
3. Participate in the operation of the vessel to the best of his or her ability.

   A trainee SHALL NOT:
   (a) Be part of the crew for the purpose of safe manning or have any safety critical duties;
   (b) Have any employment contract or any employment relationship with the owner or operator of the vessel;
   (c) Receive any remuneration for his/her activities on board;
   (d) Be considered to be a seaman or seafarer; and
   (e) Be considered as a passenger*.

* Note – the fact that a trainee(s) may contribute towards the cost of their welfare whilst on board should not imply that they are passengers.

The minimum age of trainees is 16.

"Training manual" with regard to life-saving appliances means a manual complying with the requirements of SOLAS III/Part B – Life Saving Appliances and Arrangements, Regulation 35.

"Two-way VHF radiotelephone set" means a portable or a fixed VHF installation for survival craft complying with the performance standards adopted by the IMO contained in A.762(18) or any Resolution amending or replacing it which is considered by the Administration to be relevant from time to time.

“To sea” means beyond any partially smooth waters, or smooth waters limits that may have been designated by the Authority in which the yacht is operating. In the event that no such areas have been designated, then it means that the yacht is considered to have proceeded to sea upon leaving the immediate confined designated harbour.

"Voyage" includes an excursion.

“Waterproofed” means protected as far as is practicable from the ingress of water.

"Watertight" means capable of preventing the passage of water in any direction.

"Weather deck" means the uppermost complete weather tight deck fitted as an integral part of the vessel's structure and which is exposed to the sea and weather.

"Weathertight" has the meaning given in annex I of ICLL. Weathertight means that in any sea conditions water will not penetrate into the ship.

"Wheelhouse" means the control position occupied by the officer of the watch who is responsible for the safe navigation of the vessel.

"Window" means a yacht's window, being any window, regardless of shape, suitable for installation aboard ships.

“Yacht” means a vessel primarily used for cruising and leisure activities. A yacht may be one of two categories - a "commercial yacht" or a "private yacht".

3. Application

3.1 General

This Code applies to a motor or sailing yacht of over 10 metres and under 24 metres in load line length and is in commercial use for pleasure and carries no cargo and no more than 12 passengers on a voyage or excursion.

This Code applies to yachts of less than 24 metres in load line length in commercial use for pleasure (being pleasure vessels "engaged in trade" for the purpose of Article 5 -Exceptions - of the International Convention on Load Lines, 1966 (ICLL)) which are under 24 metres in load line length which do not carry cargo and do not carry more than 12 passengers.

This Code may be applied to private yachts. The Owners of private yachts are hereby encouraged to conform with the Standards of this Code as far as practicable and reasonable so as to ensure their safe operation.

This Code applies to commercial yachts as defined herein which are registered at IMMARBE.

Any provision of this Code expressed in the conditional (i.e. "should") shall be a requirement.

3.1.1 Hull types

This Code applies to monohull and multihull motor and sailing yachts.

3.1.2 Responsibility

It is the responsibility of the owner(s) or operator(s) and the manager(s) acting on their behalf as the case may be, to ensure that a yacht is properly maintained, surveyed and inspected in accordance with this Code.

3.2 Operational Limitations

3.2.1 Subject to the size, suitability for intended use and degree of compliance with the Code, a yacht may be considered for the issue of a certificate of registry allowing it to operate under one (1) of the following four (4) limiting categories:

Category 3 - up to 30 miles from a safe haven;

Category 2 - up to 100 miles from a safe haven;

Category 1 - up to 200 miles from a safe haven;

Category 0 - unrestricted service.

3.2.2 Should the circumstances warrant, additional restrictions on the operational limits for the yacht may be applied at the discretion of the Authorised Surveyor.

3.2.3 Depending on the nature of the yacht and its intended use, it may be restricted to less than the above specified limits. All limitations or restrictions will be recorded on the Document of Compliance and the Certificate of Registry of the yacht.

3.2.4 To be issued with a Certificate of Registry for a particular Category, a yacht should comply with all the requirements specified for that Category, to the satisfaction of an Authorised Surveyor of the Administration.

3.3 Equivalent Standards, Exemptions and Existing Yachts

3.3.1 Equivalent standards

The Administration may consider a specific alternative equivalent standard to any standard required by this Code, provided that the proposed standard, code of practice, specification or technical description provides, in use, equivalent levels of safety, suitability and fitness for purpose. Part C Section 5 provides guidelines on the assessment of variations to the standards applied by this Code. Proposals for the application of alternative standards considered to be at least equivalent to the requirements of this Code should be submitted to an Authorised Surveyor for review and recommendation for approval by the Administration. Equivalence may be achieved by incorporating increased requirements, such as declared areas of operation, to balance deficiencies and thereby achieve the overall safety standard desired.

3.3.2 Exemptions

3.3.2.1 Exemptions are authorized and issued only by the Administration.

3.3.2.2 Applications for exemption should be made to the Administration through its Authorised Surveyors and be supported by justification for the exemption.

3.3.2.3 The granting of exemptions will be limited by the extent to which international Conventions and this Code of Standards permit and should be regarded as the exception and not the rule.

3.3.3 Existing yachts

3.3.3.1 In the case of an existing yacht which does not comply fully with this Code's Standards but for which this Code's Standards are reasonable and practicable, the Administration may give consideration to a proposal from the owner(s), operator(s) or the manager(s) acting on their behalf to phase in requirements within an agreed time frame.

3.3.3.2 When an existing yacht does not meet the standard specified in this Code for a particular feature and it can be demonstrated that compliance is neither reasonable nor practicable, proposals for alternative arrangements may be submitted to the Administration's Authorised Surveyor for review and recommendation for approval by the Administration. In considering individual cases, the Administration will take into account the yacht's service history and any other factors that are considered to be relevant to the standard which can be achieved.

3.3.3.3 Generally, repairs, alterations and refurbishments should comply with the standards applicable to a new yacht.

3.4 Tonnage Measurement

A tonnage measurement must be performed and a tonnage certificate issued and presented to the Administration within 90 days of initial registration.

3.5 Simplified Tonnage Measurement Method

A simplified method of measurement provided in Part C Section 6 may be used, if necessary, for commercial yachts less than 24 metres in load line length and private yachts.

3.6 Interpretation

Where a question of application of any part of this Code arises which cannot be resolved between the Recognised Organisation or an Authorized Surveyor and the owner(s)/operator(s)/manager(s) of a yacht, an application should be submitted to IMMARBE for a final ruling.

3.7 Updating this Code

The requirements of this Code will be reviewed and, if necessary, revised by the Administration as it deems appropriate. All interested parties will be informed of any changes by IMMARBE. Questions, comments and observations should be addressed to the Administration.

3.8 Effective Date

This Code comes into force on 1st June 2008.

PART B - IMMARBE'S TECHNICAL STANDARDS

4. Construction and Strength

4.1 General Requirements

4.1.1 A yacht for which the area of operation is more than 30 miles from a safe haven should normally be fitted with a watertight weather deck over the length of the yacht and be of adequate structural strength to withstand the sea and weather conditions likely to be encountered in the intended area of operation.

4.1.2 A yacht that is not fitted with a watertight weather deck in accordance with 4.1.1 should normally be restricted to area Category 3 (up to 30 miles from a safe haven).

4.1.3 A yacht which is an open boat should be restricted to area Category 3 and be provided with adequate reserves of buoyancy and stability for the yacht with its full complement of persons to survive the consequences of swamping.

4.2 Structural Strength

4.2.1 General

The design of hull structure and construction should provide strength and service life for the safe operation of a yacht, at its service draught and maximum service speed, to withstand the sea and weather conditions likely to be encountered in the intended area of operation.

4.2.2 Construction materials

4.2.2.1 A yacht may be constructed of wood, glass reinforced plastic (GRP), aluminum alloy, steel or combinations of such materials.

4.2.2.2 Proposals to use any other material should be submitted to the Authorised Surveyor for consideration and recommendation for approval by the Administration.

4.2.3 New yachts

4.2.3.1 The hull of a new yacht which has been surveyed and certificated by a Recognised Organisation should be acceptable, subject to presentation of a Certificate of Construction or Builder's Certificate.

4.2.3.2 Lists of Authorised Surveyors and Recognised Organisations are to be found on www.immarbe.com/yachts/authorizedsurveyors.html and www.immarbe.com/yachts/recognizedorganizations.html respectively.

4.2.3.3 A new yacht which has not been built under the survey of a Recognised Organisation will be considered to be of adequate strength after a satisfactory examination by an Authorized Surveyor and if it has been built:

(a) in accordance with the hull certification standards for small yacht craft, set by one (1) of the Recognised Organisations; or

(b) in general accord with the standard of a motor or sailing yacht which has a satisfactory record of safe operation in an area where the sea and weather conditions are no less severe than those likely to be encountered in the intended area of operation.

4.2.3.4 A new yacht not built in accordance with either 4.2.3.1 or 4.2.3.3 may be specially considered, provided that full information (including calculations, drawings, details of materials and construction) is provided to and approved by an Authorised Surveyor of the Administration.

4.2.4 Existing yachts

An existing yacht will be considered to be of acceptable strength if it is in a good state of repair and is:

4.2.4.1 Built to one (1) of the standards described in 4.2.3, for new yachts; or

4.2.4.2 Of a design with a satisfactory record of safe operation in an area where the sea and weather conditions are no less severe than those likely to be encountered in the intended area of operation.

The decision as to whether or not an existing yacht is deemed to be constructed in accordance with the requirements of this Code can only be made by the Administration or an Authorised Surveyor of the Administration.

4.3 Decks

4.3.1 Weather deck

4.3.1.1 A watertight weather deck referred to in 4.1.1 should extend from stem to stern and have positive freeboard throughout, in any condition of loading of the yacht. Minimum requirements for freeboard are given in Section 12.

4.3.1.2 A weather deck may be stepped, recessed or raised provided the stepped, recessed or raised portion is of watertight construction. As stated in section 4.3.1.1, any recess on the weather deck is to maintain a positive freeboard and comply with the requirements of 4.3.2.

4.3.2 Recesses

4.3.2.1 Motor yachts

A recess in the weather deck should be of watertight construction and have means of drainage capable of efficient operation when the yacht is heeled to 10 degrees, such drainage to have an effective area, excluding grills and baffles, of at least 20cm^2 for each cubic metre of volume of recess below the weather deck.

4.3.2.2 Sailing yachts

A recess in the weather deck should be of watertight construction and have:

(a) a volume (V_C) that does not exceed the value obtained from the following formula:

V_C = 0.10 x length of yacht x breadth of yacht x freeboard abreast the recess (or cockpit); and

(b) means of drainage capable of efficient operation when the yacht is heeled to 30 degrees, such drainage to have an effective area, excluding grills and baffles, of at least 10cm^2 for a yacht operating in area Category 2 or 3 and of at least 20cm^2 for a yacht operating in area Category 0 or 1.

4.3.2.3 All yachts

4.3.2.3.1 Alternative arrangements for drainage of a recess may be accepted provided it can be demonstrated that, with the yacht upright and at its deepest draught, the recess drains from a swamped condition within three (3) minutes.

4.3.2.3.2 If a recess is provided with a locker that gives direct access to the interior of the hull, the locker should be fitted with weathertight cover(s). In addition the cover(s) to the locker should be permanently attached to the yacht's structure and fitted with efficient locking devices to secure the cover(s) in the closed position.

4.3.2.4 General Arrangements

For general water freeing arrangements, see Section 6.

4.4 Watertight Bulkheads and Damage Survival

4.4.1 New monohull yachts

When a new monohull yacht is intended to operate in area category 0 or 1, watertight bulkheads should be fitted in accordance with the following requirements, except that consideration will be given to the continued acceptance of an existing design which does not meet the requirements in full but is part of a building program in progress at the time when the Code comes into force for new yachts.

4.4.1.1 Watertight bulkheads should be so arranged that minor hull damage which results in the free flooding of any one (1) compartment, will not cause the yacht to float at a waterline which is less than 75mm below the weather deck at any point. Minor damage should be assumed to occur anywhere in the length of the yacht but not on a watertight bulkhead. Standard permeabilities should be used in this assessment as follows:

Space	Percentage Permeability
Appropriated for stores	60
Appropriated for stores but not by a substantial quantity thereof	95
Appropriated for accommodation	95
Appropriated for machinery	85
Appropriated for liquids	0 or 95 (whichever results in the more onerous requirement)

4.4.1.2 In the damaged condition, the residual stability should be such that the angle of equilibrium does not exceed seven (7) degrees from the upright, the resulting righting lever curve has a range to the down flooding angle of at least 15 degrees beyond the angle of equilibrium, the maximum righting lever within that range is not less than 100mm and the area under the curve is not less than 0.015 meter radians.

4.4.1.3 The strength of a watertight bulkhead should be adequate for the intended purpose and to the satisfaction of the Authorised Surveyor.

4.4.1.4 When pipes, cables, etc. penetrate watertight bulkheads, they should be provided with valves and/or watertight glands as appropriate.

4.4.1.5 A doorway fitted in watertight bulkhead should be of watertight construction and be kept closed at sea, unless opened for transitory purposes at the discretion of the master.

4.4.2 New multihull yachts

4.4.2.1 Motor yachts

4.4.2.1.1 Generally, the requirements of 4.4.1 for a new monohull motor yacht should apply to a new multihull motor yacht intended to operate in area Category 0 or 1.

4.4.2.1.2 If a multihull motor yacht does not meet the damage criteria given in 4.4.1.1 and 4.4.1.2, the results of the calculations should be submitted to the Authorised Surveyor for assessment.

4.4.2.2 Sailing yachts

4.4.2.2.1 A new multihull sailing yacht should be so designed that it will float for more than 12 hours after capsizing, either when any two (2) hatches are open, or when any one (1) hull is holed between watertight bulkheads. This requirement may be met by subdivision or built-in flotation, but may not include the effect of air trapped in any compartment that is open to the sea.

4.4.2.2.2 Compliance with this requirement should be demonstrated by calculation for the maximum displacement condition (as defined in paragraph 11.5.1), which should show minimum reserve buoyancy in the capsized condition of 25% of the displacement.

4.4.2.2.3 When flotation material is used, it should be adequately protected from accidental damage. When an air tank is used for flotation, it should be clearly marked:

"AIR TANK - DO NOT PUNCTURE"

and should be provided with means of draining and checking for freedom from water.

4.4.2.2.4 When an intact compartment which is used to demonstrate positive flotation after capsize is penetrated by a door or hatch, the door or hatch should be of watertight construction, and should be clearly marked on both sides:

"WATERTIGHT ACCESS - KEEP CLOSED WHEN AT SEA"

4.4.3 Existing yachts

In the case of an existing yacht intended to operate in area Category 0 or 1, it is most strongly recommended that modifications, which cause the yacht to meet the standard given by 4.4.1 for a monohull yacht (motor or sailing) or 4.4.2 for a multihull yacht (motor or sailing), be implemented when the yacht undergoes major structural alterations.

5. Weathertight Integrity

A yacht should be designed and constructed in a manner that will prevent the ready ingress of seawater and in particular comply with the following requirements:

5.1 Hatchways and Hatches

5.1.1 General requirements

5.1.1.1 A hatchway which gives access to spaces below the weather deck should be of efficient construction and be provided with effective means of weathertight closure.

5.1.1.2 A cover to a hatchway should be hinged, sliding, or permanently secured by other equivalent means to the structure of the yacht and be provided with sufficient locking devices to enable it to be positively secured in the closed position.

5.1.1.3 A hatchway with a hinged cover which is located in the forward portion of the yacht should normally have the hinges fitted to the forward side of the hatch, as protection of the opening from boarding seas.

5.1.2 Hatchways that are open at sea

In general, hatches should be kept closed at sea. However, a hatch (other than one referred to in 5.2.2 below) that is to be open at sea for lengthy periods should be:

5.1.2.1 Kept as small as practicable, but never more than $1m^2$ in plane area at the top of the coaming; and

5.1.2.2 Located on the centreline of the yacht or as close thereto as practicable; and

5.1.2.3 Fitted such that the access opening is at least 300mm above the top of the adjacent weather deck at side.

5.2 Doorways and Companionways

5.2.1 Doorways located above the weather deck

5.2.1.1 A doorway located above the weather deck that gives access to spaces below should be provided with a weathertight door. The door should be of efficient construction, permanently attached to the bulkhead, not open inwards, and sized such that the door overlaps the clear opening on all sides, and has effective means of closure which can be operated from either side.

5.2.1.2 A doorway should be located as close as practicable to the centreline of the yacht. However, if hinged and located in the side of a house, the door should be hinged on the forward edge.

5.2.1.3 A doorway that is either forward or side facing should be provided with a coaming the top of which is at least 300mm above the weather deck. A coaming may be portable provided it is permanently secured to the structure of the yacht and can be locked in position. The securing arrangements of any portable coaming is to be approved by the Authorised Surveyor of the Administration.

5.2.2 Companion hatch openings

5.2.2.1 A companion hatch opening from a cockpit or recess which gives access to spaces below the weather deck should be fitted with a coaming, the top of which is at least 300mm above the sole of the cockpit or recess.

5.2.2.2 When washboards are used to close a vertical opening they should be so arranged and fitted that they will not become dislodged in any event.

5.2.2.3 The maximum breadth of the opening of a companion hatch should not exceed one (1) metre.

5.3 Skylights

5.3.1 A skylight should be of efficient weathertight construction and should be located on the centre line of the yacht, or as near thereto as practicable, unless it is required to provide a means of escape from a compartment below deck.

5.3.2 When a skylight is an opening type it should be provided with efficient means whereby it can be secured in the closed position.

5.3.3 In a new yacht, a skylight that is provided as a means of escape should be capable of being opened from either side.

5.3.4 Unless the glazing material and its method of fixing in the frame is equivalent in strength to that required for the structure in which it is fitted, a portable “blank” should be provided which can be efficiently secured in place in event of breakage of the glazing.

5.4 Portlights

5.4.1 A portlight to a space below the weather deck or in a step, recess, raised deck structure, deckhouse or superstructure protecting openings leading below the weather deck should be of efficient construction.

5.4.2 In a new yacht, a portlight should not be fitted in the main hull below the weather deck, unless the glazing material and its method of fixing in the frame are equivalent in strength to that required for the structure in which it is fitted.

5.4.3 In a new yacht, an opening portlight shall not be provided to a space situated below the weather deck.

5.4.4 In an existing yacht, a portlight fitted below the weather deck and not provided with an attached deadlight should be provided with a "blank" (at the rate of 50% for each size of portlight in the yacht), which can be efficiently secured in place in the event of breakage of the portlight. Such a "blank", however, is not required for a non-opening portlight that satisfies 5.4.2.

5.4.5 An opening portlight should not exceed 250mm in diameter or equivalent area.

5.5 Windows

5.5.1 When a window is fitted in the main hull below the weather deck, it should provide watertight integrity and be of strength compatible with size for the intended area of operation of the yacht.

5.5.2 In a new yacht, a window shall not be fitted in the main hull below the weather deck, unless the glazing material and its method of fixing in the frame are equivalent in strength to that required for the structure in which it is fitted.

5.5.3 A window fitted to a space above the weather deck or in the side of a cockpit or recess should be of efficient weathertight construction.

5.5.4 In a yacht that operates more than 100 miles from a safe haven (area Category 2 or 3), portable "blanks" should be provided at the rate of 50% for each size of window, which can be efficiently secured in place in the event of breakage of a window. Such a "blank", however, is not required for a window that meets the requirements of 5.5.2 above.

5.6 Ventilators and Exhausts

5.6.1 A ventilator should be of efficient construction and be provided with a permanently attached means of weathertight closure.

5.6.2 A ventilator should be kept as far inboard as practicable and the height above the deck of the ventilator opening should be sufficient to prevent the ready admission of water when the yacht is heeled.

5.6.3 A ventilator that must be kept open, e.g. for the supply of air to machinery or for the discharge of noxious or flammable gases, should be specially considered with respect to its location and height above deck having regard to 3.6.2 above and the down flooding angle.

5.6.4 An engine exhaust outlet that penetrates the hull below the weather deck should be provided with means to prevent back flooding into the hull through the exhaust system. The means may be provided by system design and/or arrangement, built-in valve or a portable fitting that can be applied readily in an emergency.

5.7 Air Pipes

5.7.1 When located on the weather deck, an air pipe should be kept as far inboard as possible and have a height above deck sufficient to prevent inadvertent flooding when the yacht is heeled.

5.7.2 An air pipe of greater than 10mm inside diameter, serving a fuel or other tank, should be provided with a permanently attached means of weathertight closure.

5.8 Sea Inlets and Discharges

5.8.1 An opening below the weather deck should be provided with an efficient means of closure.

5.8.2 When an opening is for the purpose of an inlet or discharge below the waterline it should be fitted with a seacock, valve or other effective means of closure that is readily accessible in an emergency.

5.8.3 When an opening is for a log or other sensor which is capable of being withdrawn, it should be fitted in an efficient watertight manner and provided with an effective means of closure when such a fitting is removed.

5.8.4 Inlet and discharge pipes from water closets should be looped up within the hull to the underside of deck and shell fittings provided as required by 5.8.2 above. When the rim of a toilet is either below or less than 300mm above the deepest waterline of the yacht, anti-siphon measures should be provided.

5.9 Materials for Valves and Associated Piping

5.9.1 A valve or similar fitting attached to the side of the yacht below the waterline, within an engine space or other high fire risk area, should be normally of steel, bronze, copper or other equivalent material.

5.9.2 When unprotected plastic piping is used it should be of good quality and of a type suitable for the intended purpose. If fitted within an engine space or fire risk area, adequate means should be provided to stop the ingress of water in the event of the pipe being damaged.

6. Water Freeing Arrangements

When a deck is fitted with bulwarks such that shipped water may be trapped behind them, the bulwarks should be provided with efficient freeing ports.

6.1 Motor yachts

6.1.1 The area of freeing ports should be at least 4% of the bulwark area and be situated in the lower third of the bulwark height, as close to the deck as practicable.

6.1.2 A yacht of less than 12 metres in load line length, if accepted for registration, having a well deck aft that is fitted with bulwarks all round and that is intended to operate no more than 100 miles from a safe haven (area Category 2 or 3), should be provided with freeing ports required by 6.1.1 or may be provided with a minimum of two (2) ports fitted (one (1) port and one (1) starboard) in the transom, each having a clear area of at least 225 sq. cm.

6.2 Sailing yachts

6.2.1 The area of freeing ports should be at least 10% of that part of the bulwark area that extends for 1/3 of the yacht's load line length amidships. A freeing port should be located in the lower third of the bulwark height, as close to the deck as practicable.

6.2.2 A freeing port should be fitted with a grid that has a spacing of not more than 50mm in each direction.

6.3 All yachts

6.3.1 When a non-return shutter or flap is fitted to a freeing port it should have sufficient clearance to prevent jamming and any hinges should have pins or bearings of corrosion proof material.

6.3.2 When a yacht has only small side deck areas in which water can be trapped a smaller freeing port area may be accepted. The reduced area should be based on the volume of water that is likely to become trapped.

6.3.3 In a yacht when freeing ports cannot be fitted, other efficient means of clearing trapped water from the yacht should be provided to the satisfaction of the Authorised Surveyor.

6.3.4 Structures and spaces considered to be non-weathertight should be provided with efficient drainage arrangements.

7. Machinery

7.1 General Requirement

7.1.1 Generally, machinery installations should comply with the requirements given below. Other installations proposed may be specially considered, provided that full information is presented to and approved by the Authorised Surveyor.

7.1.2 In the particular case of a proposal to install an inboard fuel engine in a new yacht, full information should be presented to the Authorised Surveyor of the Administration for approval.

7.1.3 In motor vessels, the main propulsion and machinery all auxiliary machinery essential to the propulsion and the safety of a sailing yacht should be designed to operate when the yacht is upright and when inclined at any angle of heel up to and including 15 degrees and 7.5 degrees respectively either way under static conditions.

7.1.4 The main propulsion machinery and all auxiliary machinery essential to the propulsion and the safety of a sailing yacht should be designed to operate when the sailing yacht is upright and when inclined at any angle of heel up to and including 15 degrees either way under static conditions and 22.5 degrees either way under dynamic rolling conditions and simultaneously inclined 7.5 degrees by bow or stern under dynamic pitching conditions.

7.2 Diesel engines

A yacht fitted with an inboard engine should be provided with a suitable diesel engine and sufficient fuel capacity for its intended area of operation.

7.3 Gasoline engines

7.3.1 In a sailing yacht, or in a motor yacht that is fitted with a watertight weather deck, a gasoline engine may be accepted provided that the engine is a suitable outboard type and a fuel tank is fitted whereby either the tank or the complete contents can be jettisoned rapidly and safely and when spillage during fuel handling will drain directly overboard.

7.3.2 Replacement outboard engines for existing yachts and new installations for yachts and tenders are to be in compliance with national and international regulations governing the engine emissions.

7.3.3 In an existing yacht only, an inboard gasoline engine may be accepted provided that the engine is located in an efficient enclosed space to which a fixed fire extinguishing system is fitted, and:

(a) Provision is made to ventilate the engine space thoroughly before the engine is started and

(b) The vent pipe from the fuel tank is led to the open deck and the opening protected by a flame proof fitting.

(c) In locations where the build up of hydrocarbon vapours are likely to occur, a suitable hydrocarbon gas detector should be fitted under or adjacent to the tank (located in a safe place). The detector components, and any other electrical equipment residing in the vapour area should not be capable of causing ignition.

7.3.4 In an existing yacht, a fixed-in-place inboard fuel tank should meet the following requirements:

(a) "Explosafe" foils should not be used in a tank constructed from steel.

(b) The fuel tank should be pressure tested to at least 0.3 bar.

(c) An intrinsically safe detector of hydrocarbon gas being fitted under or adjacent to the tank (located in a safe place) when the possibility of accumulation of hydrocarbon vapors exists;

(d) The opening of the vent pipe from the fuel tank being protected by a flash proof fitting; and

7.3.5 In an existing yacht, gasoline stored in portable tanks or containers should meet the requirements of 7.3.1 or 7.3.4 as appropriate.

7.3.6 In an existing inflatable boat or rigid inflatable boat, a gasoline engine installation should meet the requirements of 7.3.2 & 7.3.4.

7.4 Installation

7.4.1 The machinery, fuel tank(s) and associated piping systems and fittings should be of a design and construction adequate for the service for which they are intended and should be so installed and protected as to reduce to a minimum danger to persons during normal movement about the yacht, due regard being paid to moving parts, hot surfaces and other hazards.

7.4.2 Adequate means should be provided to isolate a source of fuel that may feed a fire in an engine space fire situation. A valve or cock, which is capable of being closed from a position outside the engine space, should be fitted in the fuel feed pipe as close as possible to the fuel tank.

7.4.3 Ventilation pipes from fuel tanks within the yacht are to be led to the open atmosphere and terminate at a position higher than that of the filling point. The open end of the ventilation head must be protected against:-

(a) Water ingress by means of a goose neck arrangement or self closing device; and

(b) Flame ingress by means of fitting a suitable removable flame proof fitting.

7.4.4 In a fuel supply system to an engine unit, when a flexible section of piping is introduced, connections should be of a screw type or equivalent approved type. Flexible pipes should be fire resistant/metal reinforced or otherwise protected from fire. Materials and fittings should be of a suitable recognized national or international standard.

7.4.5 In the case of an existing yacht fitted with a diesel engine in which the installation of a flexible section of piping does not immediately meet the requirements, these will require to be changed to achieve compliance with this code.

7.5 Engine Starting and Stopping

7.5.1 An engine should be provided with either mechanical or hand starting or electric starting with independent batteries.

7.5.2 When the sole means of starting is by battery, the battery should be in duplicate and connected to the starter motor via a 'change over switch' so that either battery can be used for starting the engine. Charging facilities for the batteries should be available.

7.5.3 For all internal combustion engines there should be external means of stopping the machinery which is achieved independently of closing the fuel tank isolation valve.

7.6 Portable Equipment

7.6.1 When portable equipment powered by a gasoline or diesel engine is provided, the unit should be stored on the weather deck.

7.6.2 A deck locker or protective enclosure for the portable equipment should have no opening(s) to an enclosed space within the hull of the yacht, and the locker or protective enclosure should be adequately ventilated and drained.

7.6.3 Fuel provided for the engine should be stored in portable containers or tanks and meet the requirements of Section 7.7.

7.7 Stowage of Fuel

When fuel in portable containers for use in an outboard engine of a tender (dinghy) or for portable equipment is unavoidably carried on board, the containers should be clearly marked and should be stowed on the weather deck where they can readily be jettisoned and where spillage will drain directly overboard. The quantity of fuel and number of portable containers should be kept to a minimum. (Requirements for the storage of gasoline for propulsion engines of a yacht are given in Section 7.3.)

8. Electrical Arrangements

8.1 General

Electrical arrangements should be such as to minimize risk of fire and electric shock. Adequate earthing arrangements should be fitted to tanks, machinery and other metallic objects.

8.2 Systems

8.2.1 Systems should be two conductor, except that single conductor systems are acceptable for engine circuits comprising engine mounted equipment which have a return connection made at the engine itself.

8.2.2 A system in which there is no intentional connection of the circuit to earth (an insulated system) should be provided with double pole switches, except that single pole switches may be used in the final sub-circuit.

8.2.3 Single pole switches are only acceptable when used in the 'live' (+) conductor in a system with one pole earthed. Fuses should not be installed in an earthed conductor.

8.2.4 All circuits, except the main supply from the battery to the starter motor and electrically driven steering motors, should be provided with electrical protection against overload and short circuit, (i.e. fuses or circuit breakers should be installed). The rating of over current protection devices should not exceed the rated current capacity of the conductor being protected. Short circuit protection should be suitable for the total rated current of the consumers in the circuit protected. Where a single outboard engine is installed, and fitted with in-line fuses, suitable procedures should be established to enable the engine to be started in the event of a damaged fuse.

8.2.5 Steering circuits, the loss of which would lead to steering failure, should have an overload alarm in lieu of overload protection (this does not apply to auto-pilot motors). However all circuits should be protected against short circuit events.

8.3 Lighting

When general lighting within a yacht is provided by a centralized electrical system, an alternative source of lighting should be provided, sufficient to enable persons to make their way to the open deck and to permit work on essential machinery.

8.4 Batteries

8.4.1 Battery System Requirements

8.4.1.1 Batteries and battery systems should be provided as indicated in Section 7.5.1, 7.5.2 and 16.2.6.

8.4.1.2 The battery terminals should be protected against accidental contact with metallic objects.

8.4.1.3 Battery charging systems should be fitted with circuitry to prevent overcharging.

8.4.1.4 A battery cut-out switch should be provided for all systems. It is preferred that this switch acts as an isolator, i.e. it is double pole, however, single pole is acceptable on the positive conductor. If a battery change-over switch is fitted and is provided with an "off" position, this may serve as the cut-out switch also.

8.4.1.5 Batteries supplying essential services (emergency lighting, steering systems, navigation and communications equipment) should be located in a position not likely to flood in normal operations or in the event of minor damage.

8.4.1.6 In the case of a sailing vessel, batteries should be of the sealed type to prevent electrolytic loss in the event of a knockdown or immersion.

8.4.2 Battery stowage

8.4.2.1 All batteries should be secured firmly to avoid movement when the vessel is subjected to sudden acceleration or deceleration, a large angle of heel, trim and in the case of sailing vessels, knockdown or inversion.

8.4.2.2 Where the maximum charging power output exceeds 2kW, the batteries shall be placed in a suitably ventilated dedicated compartment within the vessel or a locker on the open deck. In either case stowage space is to be for batteries only.

8.4.3 Ventilation

8.4.3.1 To ensure that any evolved hydrogen is expelled, battery compartments, lockers and containers should be exhausted from the highest point of the space and air supplied at a level below the top of the batteries.

8.4.3.2 If mechanical means are employed to ventilate a battery compartment directly, then the components must not be a potential source of ignition.

8.5 Cables

8.5.1 Electric cables should be constructed to a recognised standard for marine use in small vessels.

8.5.2 Cables which are not provided with electrical protection should be kept as short as possible and should be "short circuit proofed", e.g. single core with an additional insulated sleeve over the insulation of each core. Normal marine cable, which is single core, will meet this requirement without an additional sleeve, since it has both conductor insulation and a sheath.

8.5.3 Note that when selecting cables, particular attention should be given to environmental factors such as temperature and contact with damaging substances, e.g. polystyrene, which degrades PVC insulation.

8.5.4 Adequate provision should be made for securing electrical connections, e.g. by use of locking washers.

8.6 Hazardous Spaces

8.6.1 Where practicable, electrical equipment should not be installed in a space where petroleum vapour or other hydrocarbon gas is likely to accumulate. When equipment is installed in such a space it must comply with a recognised standard for prevention of ignition of a flammable atmosphere.

8.6.2 Any compartment which contains a gas consuming appliance or any compartment into which flammable gas may leak or accumulate, should be provided with a hydrocarbon gas detector and alarm. The detector and alarm should be designed to comply with a recognised standard in accordance with Section 8.6.1. (Refer to Section 14).

8.7 Lightning Protection

Where a considerable risk of lightning strike is identified, it is recommended that attention is paid to lightning strike protection.

9. Steering Gear and Propeller System

9.1 Steering Gear

9.1.1 A yacht should be provided with efficient means of steering.

9.1.2 The control position should be located so that the person conning the yacht has a clear view for the safe navigation of the yacht.

9.1.3 When a steering gear is fitted with remote control, arrangements should be made for emergency steering in the event of failure of the control. Arrangements may take the form of a tiller to fit the head of the rudder stock.

9.1.4 Construction of the rudder and propeller systems are to be to an appropriate standard and to the satisfaction of the Authorised Surveyor of the Administration.

9.2 Propeller System

9.2.1 As appropriate to the vessel, propeller line shaft(s) construction materials and design in total (including shaft brackets, propeller securing, bearings, sterntube and thrust block) and supporting structures should be adequate for the operating conditions for the vessel. Recognised design standards should be used.

9.2.2 Construction and fittings should be to an appropriate standard, to the satisfaction of the Administration.

10. Bilge Pumping

10.1 General Pumping Requirements

10.1.1 Bilge systems on a yacht should be capable of pumping out every compartment other than permanent tanks used for the storage of liquids. Provided that safety is not unnecessarily affected, an Authorised Surveyor of the Administration may permit the dispensation from the means of pumping or drainage of particular compartments.

10.1.2 All bilge pumps (other than portable submersible pumps) should be capable of being operated from a single control position with all hatchways and companionways closed.

10.1.3 In order to prevent back flooding, bilge suction valves are to be of a non-return type.

10.1.4 All bilge suctions which are located in a separate compartment to the bilge pump are to be fitted with a suitable strum box arrangement to prevent blocking of the bilge suction line.

10.1.5 Unless otherwise stated, pump capacities should meet the following minimum requirements:

(a) For vessels between 10 and 12 metres in length, the pump capacity shall not be less than 15 litres per minute.

(b) For yachts equal to and greater than 12 metres in length, the pump capacity shall not be less than 30 litres per minute.

10.2 Yachts Intended for Operating in Area Category 0 or 1

10.2.1 A yacht should have an efficient bilge pumping system consisting of at least one (1) hand bilge pump and one (1) engine driven or independent power bilge pump, with suction pipes so arranged that any compartment can be drained when the yacht is heeled up to an angle of 10 degrees. Pumps provided should be situated in not less than two (2) separate spaces.

10.2.2 When considered necessary to protect the bilge suction line from obstruction, an efficient strum box should be provided.

10.2.3 Portable semi-submersible bilge pumps may be considered as an alternative to one (1) of the two (2) required pumps.

10.2.4 Other means of providing efficient bilge pumping may be considered provided that full information is submitted to and approved by the Authorised Surveyor.

10.3 Yachts Intended for Operating in Area Category 2 or 3

10.3.1 A yacht should be provided with at least two (2) bilge pumps, one (1) of which may be power driven.

10.3.2 In a sailing yacht, one (1) pump should be situated in the cockpit or on the weather deck and one (1) pump in the accommodations.

10.3.3 A bilge pump should be capable of being operated with all hatchways and companionways closed.

10.3.4 When considered necessary to protect a bilge suction line from obstruction, an efficient strum box should be provided.

10.3.5 Other means of providing efficient bilge pumping may be considered provided that full information is submitted to and approved by the Authorised Surveyor.

10.4 Bilge Alarm

10.4.1 When propulsion machinery is fitted in an enclosed watertight compartment, a bilge level alarm should be fitted. Additionally bilge alarms are to be fitted in compartments where skin fittings are located which could lead to an accumulation of bilge water which is not readily observed.

10.4.2 The alarm should provide an audible warning at the control position.

10.4.3 Should there be more than two (2) in number bilge compartments fitted with alarms then additionally a visual indication shall also be provided at the control position.

10.4.4 Bilge pumps capable of automatic starting shall not be fitted in compartments containing potential pollutants, i.e. machinery spaces.

11. Intact Stability

11.1 New Motor Yacht

11.1.1 General

The standard of stability to be achieved by a new motor yacht should be dependent on its length, maximum number of persons permitted to be carried and intended area of operation.

11.1.1.1 A motor yacht intended for operating in area Category 0 or 1, is required to be provided with stability information which is approved by the Authorised Surveyor and kept on board the yacht.

11.1.1.2 A motor yacht intended for operating in area Category 2 or 3 is subject to a simplified assessment of stability and is not required to be provided with approved stability information.

11.1.1.3 If a motor yacht of multihull type does not meet the stability criteria given below, the calculations should be submitted to the Authorised Surveyor of the Administration for assessment.

11.1.1.4 A motor yacht of unusual form and/or arrangement should be specially considered by the Authorised Surveyor.

11.1.2 New motor yachts intended to operate in area Category 0 or 1

11.1.2.1 The lightship weight, vertical centre of gravity (KG) and longitudinal centre of gravity (LCG) of a monohull motor yacht should be determined from the results of an inclining experiment witnessed by an Authorised Surveyor.

11.1.2.2 The lightship particulars of a multihull motor yacht should be obtained by a weighing to determine the lightship weight and longitudinal centre of gravity (LCG) and either a careful calculation or an inclining in air to determine vertical centre of gravity (KG).

11.1.2.3 The lightship weight should be increased by a margin for growth, which need not exceed 5% of the lightship weight, positioned at the LCG and vertical centre of the weather deck amidships or KG, whichever is the higher.

11.1.2.4 Curves of static stability (GZ curves) should be produced for:

Loaded departure, 100% consumables; and
Loaded arrival, 10% consumables.

11.1.2.5 Buoyant structures intended to increase the range of positive stability should not be provided by fixtures to superstructures, masts or rigging.

11.1.2.6 The curves of static stability for the loaded conditions should meet the following criteria:

(a) The area under the righting lever curve (GZ curve) should be not less than 0.055 metre-radians up to 30 degrees angle of heel and not less than 0.09 metre-radians up to 40 degrees angle of heel or the angle of down flooding if this angle is less; and

(b) The area under the GZ curve between the angles of heel of 30 and 40 degrees or between 30 degrees and the angle of down flooding if this is less than 40 degrees, should be not less than 0.03 metre-radians.

(c) The righting lever (GZ) should be at least 0.20 metres at an angle of heel equal to or greater than 30 degrees.

(d) The maximum GZ should occur at an angle of heel of not less than 25 degrees.

(e) After correction for free surface effects, the initial metacentric height (GM) should not be less than 0.35 metres.

11.1.3 New motor yachts intended to operate in area Category 2 or 3

11.1.3.1 A motor yacht should be tested in the fully loaded condition, which should correspond to the freeboard assigned, to ascertain the angle of heel and the position of the waterline that results when all persons, which the yacht is to be certificated to carry, are assembled along one side of the yacht. The helmsman may be assumed to be at the helm. Each person may be substituted by a mass of 75kg for the purpose of the test.

The motor yacht will be judged to have an acceptable standard of stability if the test shows:

(a) That the angle of heel does not exceed seven (7) degrees; and

(b) That in the case of a yacht with a watertight weather deck extending from stem to stern, as described in 4.1.1, the freeboard to the deck is not less than 75mm at any point.

11.1.3.2 It should be demonstrated by test or by calculation that an open boat, when fully swamped, is capable of supporting its full outfit of equipment, the total number of persons for which it is to be certificated and a mass equivalent to its engine and full tank of fuel.

11.2 Existing Motor Yachts

11.2.1 General

11.2.1.1 The standard of stability required to be achieved by an existing motor yacht is generally to be as required for a new motor yacht.

11.2.1.2 A motor yacht operating in area Category 0 or 1 should be provided with approved stability information.

11.2.2 Existing motor yachts operating in area Category 0 or 1

Unless a motor yacht is provided with stability information that is approved and relevant to the yacht in its present condition, the yacht should be treated as if it is a new motor yacht.

11.2.3 Existing motor yachts operating in area Category 2 or 3

A motor yacht for which the intended area of operation is not more than 100 miles from a safe haven (area Category 2 or 3) should be provided with stability information which is approved and relevant to the yacht in its present condition. If this is not present then at the discretion of the Administration, approval could be granted provided:

11.2.3.1 It can be demonstrated that the yacht has a satisfactory record of safe operation in the intended area of operation for a period of not less than five (5) years; or

11.2.3.2 It can be demonstrated by test or by calculation that an open boat, when fully swamped, is capable of supporting its full outfit of equipment, the total number of persons for which it is to be certificated and a mass equivalent to its engine and full tank of fuel.

11.3 New Monohull Sailing Yachts

The standard of stability to be achieved by a new sailing yacht will be dependent upon its length.

11.3.1 Sailing Yachts operating in area Category 0 or 1

11.3.1.1 The centre of gravity (KG) of a yacht should be established by an inclining experiment and a curve of static stability (GZ curve) for the loaded departure with 100% consumables should be produced.

Notes:

(a) The above condition may include a margin for growth not exceeding 5% of the lightweight with the VCG positioned at the upper deck amidships.

(b) Buoyant structures intended to increase the range of positive stability should not be provided by fixtures to either a mast or rigging.

11.3.1.2 The GZ curve required by 11.3.1.1 should have a positive range of not less than the angle determined by the formula in the table in 11.3.2.6.

11.3.1.3 In addition to the requirements of 11.3.1.2, the angle of steady heel obtained from the intersection of a “derived wind heeling lever” curve with the GZ curve referred to in 11.3.1.1 above should be greater than 15 degrees.

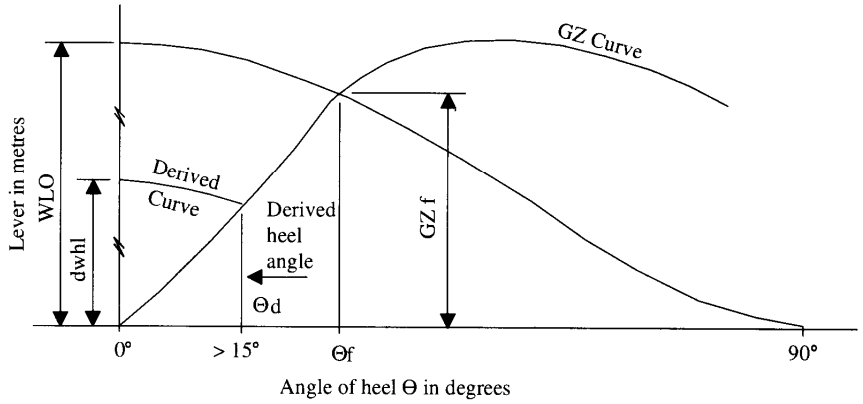
In Figure 1:

'DWHL' = the "derived wind heeling lever" at any angle θ degrees

= 0.5 x WLO x $Cos^{1.3}\theta$

where WLO = GZf / $Cos^{1.3}\theta f$

FIGURE 1



Noting that:

WLO- is the magnitude of the actual wind heeling lever at 0 degrees which would cause the yacht to heel to the 'down flooding angle' (θf) or 60 degrees whichever is least.

GZf- is the lever of the yacht's GZ at the 'down flooding angle' (θf) or 60 degrees whichever is least.

θd- is the angle at which the 'derived wind heeling' curve intersects the GZ curve. (If d is less than 15 degrees the yacht will be considered as having insufficient stability for the purpose of the Code).

θf- the 'down flooding angle' is deemed to occur when openings having an aggregate area, in square metres, greater than:

$$\frac{\text{sailing yacht's displacement in tons}}{1500},$$

are immersed.

Moreover, it is the angle at which the lower edge of the actual opening that results in critical flooding becomes immersed. All openings regularly used for crew access and for ventilation should be considered when determining the down flooding angle. No opening regardless of size that may lead to progressive flooding should be immersed at an angle of heel of less than 40 degrees. Air pipes to tanks can, however, be disregarded.

If as a result of immersion of openings in a deckhouse a yacht cannot meet the required standard, those deckhouse openings may be ignored and the openings in the weather deck used instead to determine θf. In such cases the GZ curve should be derived without the benefit of the buoyancy of the deckhouse.

It might be noted that provided the sailing yacht complies with the requirements of paragraphs 11.3.1.1, 11.3.1.2 and 11.3.1.3 and it is sailed with an angle of heel which is no greater than the 'derived angle of heel', it should be capable of withstanding a wind gust equal to 1.4 times the actual wind velocity (i.e. twice the actual wind pressure) without immersing the 'down flooding openings', or heeling to an angle greater than 60 degrees.

11.3.1.4 A 'Stability Information' booklet should be submitted for review and approval to the Authorised Surveyor of the Administration, and placed on board the yacht. The booklet should include details of the maximum steady angle of heel for the worst sailing condition. The steady angle of heel is to be calculated in accordance with 11.3.1.3. The booklet should also include curves of maximum recommended steady angle of heel for the prevention of down flooding in the event of squall conditions.

11.3.2 Sailing Yachts operating in area Category 2 or 3

11.3.2.1 General

The stability of a sailing yacht should be determined by the methods discussed below and its area of operation should be dependent upon the standard that it is shown to achieve.

11.3.2.2 Sailing Yachts without external ballast keels

11.3.2.2.1 Stability assessment

The centre of gravity (KG) of a sailing yacht should be established by an inclining experiment and, in addition, a curve of static stability (GZ curve) for the loaded departure, 100% consumables should be produced.

Notes:

(a) The above condition may include a margin for growth not exceeding 5% of the lightweight with the VCG positioned at the upper deck amidships.

(b) Buoyant structures intended to increase the range of positive stability should not be provided by fixtures to either a mast or rigging.

11.3.2.2.2 Permitted area of operation

The permitted area of operation is dependent upon a yacht's range of stability as indicated in the table in 11.3.2.6.

11.3.2.3 Sailing Yachts fitted with external ballast keels

11.3.2.3.1 The stability assessment of a sailing yacht may be made by any one (1) of the following methods:

(a) Method 1 - as for sailing yachts without external ballast keels, see 11.3.2.2.1 above;

(b) Method 2 - by the formula shown in 11.3.2.4;

(c) Method 3 - by the 'STOPS' Numeral developed by the Royal Yachting Association (RYA) and discussed in 11.3.2.5.

11.3.2.3.2 Method 1 should be used for a sailing yacht fitted with more than one (1) of the following:

(a) Roller furling headsail;

(b) In-mast or behind-mast roller furling mainsail;

(c) A radar antenna mounted higher than 30% of the load line length of the yacht above the waterline.

11.3.2.3.3 Permitted area of operation

The permitted area of operation is dependent upon a yacht's range of stability or its STOPS Numeral as indicated in the table in 11.3.2.6.

11.3.2.4 Formulae for estimating range of stability

The range of positive stability for a sailing yacht fitted with an external ballast keel may be estimated from the following formulae:

$$\text{Estimated range} = \frac{110 + 400 \text{ degrees}}{(SV10.0)}$$

$$SV = \frac{\text{Beam}^2}{BR \times DCB \times (\text{DISPLACED VOL})^{1/3}}$$

Noting that:

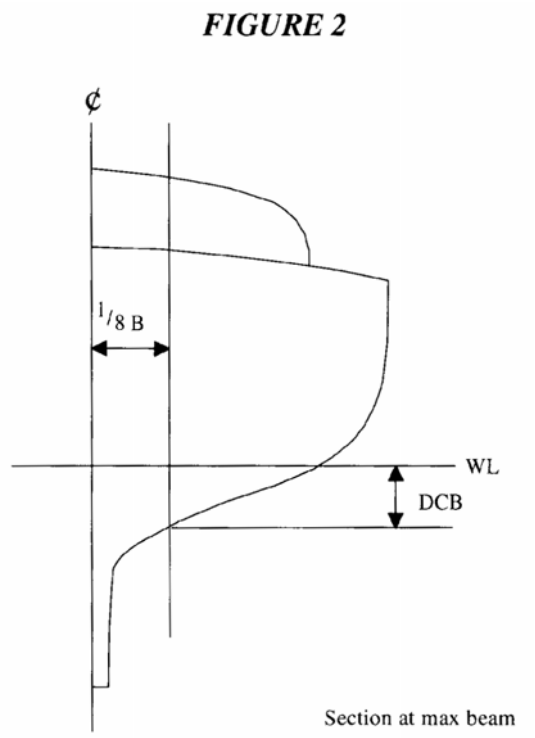
Beam = greatest beam measured, excluding rubbing strips, in metres.

Ballast Ratio (BR) = weight of ballast in tons contained in the keel divided by the full displacement in tons.

Displaced Volume = the volume of a yacht's displacement, in m^3, at the operational draught.

Draught of canoe body (DCB) in metres is taken by measuring the maximum draught at the 1/8 of the full beam from the centreline in way of the transverse section at greatest beam as illustrated in following Figure 2:

FIGURE 2



Once the estimated range of stability has been determined it is necessary to study the table in paragraph 11.3.2.6 to ascertain the area of operation that the range permits.

11.3.2.5 Assessment using the RYA 'STOPS' numeral or SSS numeral calculated by the Royal Ocean Racing Club

11.3.2.5.1 A sailing yacht can have its area of operation based upon the RYA 'STOPS numeral'. Information on the derivation of the STOPS numeral may be obtained from the Authorised Surveyor. Once the STOPS Numeral has been determined it is necessary to study Table 1 in paragraph 11.3.2.6 to ascertain the permitted area of operation.

11.3.2.5.2 An SSS numeral calculated by the RORC will be accepted in place of a STOPS numeral, provided that it includes a self-righting factor based on an inclining experiment and shown on a valid IOR or IMS rating certificate.

11.3.2.6 Table showing permitted areas of operation and STOPS numeral for a yacht of less than 15 metres in load line length

Table 1

Permitted area of operation	Code Category	Minimum required standards	
		Range of stability (degrees)	STOPS numeral
Unrestricted	0	$\frac{90 + 60 \times (24 - LOA)}{17}$	50
Up to 200 miles from a safe haven	1	$\frac{90 + 60 \times (24 - LOA)}{17}$	40
Up to 100 miles from a safe haven	2	$\frac{90 + 60 \times (24 - LOA)}{20}$	30
Up to 30 miles from a safe haven	3	$\frac{90 + 60 \times (24 - LOA)}{25}$	20

11.3.2.7 Stability information

Stability information will not be required in booklet form. The owner, operator or manager should, however, present documentary evidence to show that the required range of stability or STOPS Numeral is in accordance with Table 1 in 11.3.2.6 for the intended and permitted area of operation.

11.3.2.8 Guidance on stability assessment

It should be noted that the Authorised Surveyor may require a full stability analysis for a sailing yacht which has been modified from the original design, particularly if the freeboard has been significantly reduced or the modification has involved the addition of a mast-furled main sail, a roller-reefing headsail, a radar antenna or any other item of equipment which may have caused the position of the vertical centre of gravity to be situated at a higher level than that intended by the designer.

11.4 Existing Monohull Sailing Yachts

11.4.1 When stability information has been previously approved by an Authorised Surveyor under existing criteria, it will continue to be acceptable subject to the following:

(a) A sailing yacht does not undergo a major conversion; or

(b) The owner or managing agent elects to re-submit a sailing yacht for stability approval based on the new criteria.

11.4.2 An existing sailing yacht which does not comply with 11.4.1 should comply with 11.3.

11.5 Multihull Sailing Yachts - New and Existing

11.5.1 A multihull sailing yacht should be provided with a 'Stability Information' booklet, giving details of the maximum advised mean apparent wind speeds for each expected combination of sails that may be set, for each of two (2) displacement conditions.

The displacement conditions used in the stability booklet should comprise the maximum displacement condition with full stores, fluids and spares, and the minimum displacement condition with 10% fluids and no stores or spares. The hull and outfit weight used for calculating these conditions should be based on a weighing of the actual completed yacht. Spars, standing and running rigging may be weighed separately.

A good resource for the 'Stability Information' booklet would be the UK Department of Transport's Model Stability Information Booklet for Multihull Sailing Yachts published by HMSO. The publication includes notes for consultants that explain methods and assumptions for calculation of the maximum hull righting moment and Maximum Advised Mean Apparent Wind speed (MAMAW). The value of MAMAW for a sailing yacht determines the permitted area of operation, which is given in Table 2 of paragraph 11.5.5 below.

11.5.2 For each combination of sail plan and displacement condition (maximum and minimum), the wind speed (in knots) should be calculated at the point when the maximum wind heeling moment equals the maximum hull righting moment. The MAMAW = 2/3 x calculated wind speed.

11.5.3 The wind heeling force developed on the sails and hull should be taken as:

Force (Newtons) = 0.20 x A x (square of wind speed in knots)
[Force (kg) = 0.02 x A x (square of wind speed in knots)]

where: A = lateral profile area of sails, masts and above-water hull (square metres)

The effective lever of the wind heeling force should be taken as the vertical separation of the geometric centres of area of the above-water and below-water profiles of the sailing yacht, including sails.

11.5.4 The maximum hull righting moment for each combination of sail plan and displacement condition may be calculated by either of the following two (2) methods:

(a) Conventional method

(i) Determination of righting moments by traditional naval architecture methods.

(ii) A full righting moment analysis should be used for a multihull of unusual form and for a trimaran with floats when each float is incapable of easily supporting the displacement of the sailing yacht.

(b) Simplified method

This method may be used for:

(i) a catamaran of normal form; and

(ii) a trimaran with floats when each float is capable of easily supporting the displacement of the yacht.

The approximate maximum hull righting moment (kg·metres) is given by:

displacement (kg) x {b - [KG x sin(Hm)]}

where:

b = the spacing of the centreline of the float to the centreline of the sailing yacht.

KG = estimated vertical centre of gravity of the yacht, with spars and sails (hoisted), above the bottom of the canoe body, conservatively taken as 75% of the depth from the bottom of the (main hull) canoe body to the top of the main coach roof.

Hm = estimated angle of heel of maximum righting moment.

It might be noted, that provided the sailing yacht complies with the above requirements and is sailed in conditions where the maximum advised mean apparent wind speed (MAMAW) is not exceeded for the actual combination of sail plan and displacement condition, it should be able to withstand a wind gust of 1.5 times the actual wind speed without capsizing.

11.5.5 The permitted area of operation for a sailing yacht should be determined by reference to the minimum acceptable value for maximum advised mean apparent wind speed calculated for the largest working sail plan of the yacht in the minimum displacement condition, as given in the following Table 2. The working sail plan comprises sails that may be set when proceeding with the true wind less than 60 degrees off the bow, and includes any sail of a weight that is capable of withstanding winds of more than 10 knots. The working sail plan should be detailed in the 'Stability Information' booklet.

Table 2

Permitted area of operation	Code Category	Minimum acceptable value for Maximum Advised Mean Apparent Wind speed [MAMAW] (knots) for minimum displacement condition
Unrestricted	0	18
Up to 200 miles from a safe haven	1	16
Up to 100 miles from a safe haven	2	14
Up to 30 miles from a safe haven	3	12

11.5.6 A 'Stability Information' booklet, similar in format to the UK Department of Transport's model booklet, should be submitted for review and approval by the Authorised Surveyor of the Administration and placed on board the sailing yacht.

11.5.7 The 'Stability Data' page from the 'Stability Information' booklet should be copied and mounted in a suitable position for the ready reference of the crew when at sea.

12. Freeboard and Freeboard Marking

12.1 Motor Yachts

A motor yacht should have a freeboard mark placed on each side of the yacht at the position of the longitudinal centre of flotation. The freeboard on a motor yacht should be not less than that determined by the following requirements:

12.1.1 New motor yachts

A new motor yacht, when in still water and loaded with fuel, stores and weights representing the total number of persons certificated to be carried (taken as 75 kg per person), should be upright, and:

12.1.1.1 In the case of a motor yacht with a continuous watertight weather deck in accordance with paragraph 4.3.1.1, which is neither stepped nor recessed nor raised, have a freeboard measured down from the lowest point of the weather deck of not less than 420 mm for a motor yacht of ten (10) metres in load line length or under and not less than 750mm for a motor yacht of eighteen (18) metres in load line length or over. For a motor yacht of intermediate load line length, the freeboard should be determined by linear interpolation;

12.1.1.2 In the case of a motor yacht with a continuous watertight weather deck in accordance with paragraph 4.3.1.2, which may be stepped, recessed or raised, have a freeboard measured down from the lowest point of the well deck of not less than 255 mm for a motor yacht of ten (10) metres in load line length or under and not less than 400mm for a motor yacht of eighteen (18) metres in load line length or over. For a motor yacht of intermediate load line length, the freeboard should be determined by linear interpolation;

12.1.1.3 In the case of either an open or partially open motor yacht, have a clear height of side (i.e., the distance between the waterline and the lowest point of the gunwale*) of not less than 510 mm for a motor yacht ten (10) metres in load line length or under and not less than 800mm for a motor yacht eighteen (18) metres in load line length or over. For a motor yacht of intermediate load line length, the clear height should be determined by linear interpolation.

* The clear height of the side is to be measured to the top of the gunwale or capping or to the top of the wash strake if one is fitted above the capping.

12.1.2 Existing motor yachts

12.1.2.1 Generally, an existing yacht should comply with paragraph 12.1.1.

12.1.2.2 In the case of an existing motor yacht that is unable to comply with 12.1.1, the Authorised Surveyor may be prepared to consider a lesser standard of 'operational freeboard' or 'clear height of side'. However, in such a case it will be necessary for the owner or managing agent to provide the Authorised Surveyor with a detailed account of the operational history of the yacht. This detailed account should include sea areas normally visited, loaded draught/freeboard/height of side, number of persons usually carried, number of years employed in this mode, together with other details which may be considered relevant.

12.1.3 All motor yachts

A yacht should be assigned a freeboard that corresponds to the draught of the yacht when fully loaded with fuel, stores and the total number of passengers and crew to be carried (taken as 75 kg per person) plus 25mm, but which in no case should be less than the freeboard required by paragraphs 12.1.1 or 12.1.2.

12.2 Sailing Yachts

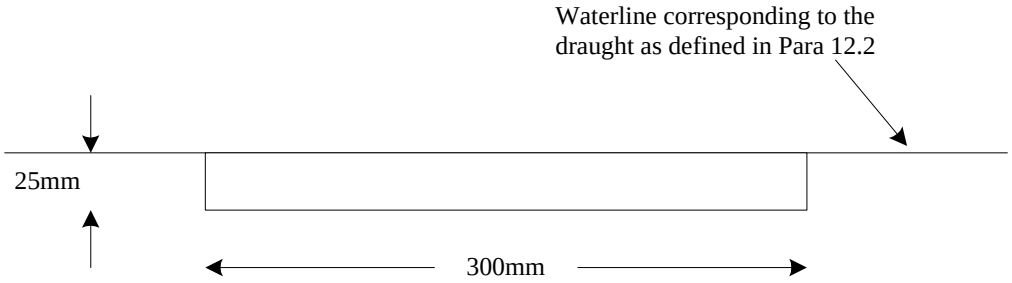
A sailing yacht required to be provided with an approved stability information booklet should have a freeboard mark placed on each side of the hull at the longitudinal position of the longitudinal centre of flotation for the maximum draught at which the stability of the sailing yacht has been determined.

12.3 Freeboard Mark and Loading

12.3.1 The freeboard mark referred to in paragraphs 12.1 and 12.2 above should measure 300mm in length and 25mm in depth. The marking should be permanent and painted black on a light background or in white or yellow on a dark background. Consideration will be given by the Authorised Surveyor for bonding of the mark to the hull as well as substitution of black, yellow or white markings for an appropriate equivalent such as stainless steel.

12.3.2 The top of the mark should be positioned at the waterline corresponding to the draught given in 12.1.3 or 12.2, as appropriate, at the position of the longitudinal centre of flotation, as shown in Figure 4 below.

Figure 4



12.3.2 A yacht should not be operated in any condition that will result in its freeboard marks being submerged when it is at rest and upright in calm water.

13. Life Saving Appliances

13.1 Requirements

Life-saving appliances should be provided in accordance with the requirements appropriate to the type of yacht as given in Table 1.

Table 1

LIFE-SAVING APPLIANCES

Area of operation Category	3	2	1	0
(m = nautical miles)	< 30m	≥ 30m & < 100m	≥ 100m & < 200m	≥ 200m
Life rafts See 13.3	Yes 100%	Yes 100%	Yes 100%	Yes 100%
Danbuoy See 13.4	Motor Yacht None Sailing Yacht 1	Motor Yacht None Sailing Yacht 1	Motor Yacht None Sailing Yacht 1	Motor Yacht None Sailing Yacht 1
Life buoys See 13.5	< 15 persons 2; ≥ 15 persons 4	< 15 persons 2; ≥ 15 persons 4	< 15 persons 2; ≥ 15 persons 4	< 15 persons 2; ≥ 15 persons 4
Life buoy – lights & drogues	2	2	2	2
Buoyant line See 13.5.1	1 or 2	1 or 2	1 or 2	1 or 2
Lifejacket See 13.6	100%	100%	100%	100%
Parachute flares	4	4	6	12
Red hand flares	6	6	6	6
Smoke Signals	2 buoyant or hand held	2 buoyant or hand held	2 buoyant or hand held	2 buoyant or hand held
Thermal Protective Aids (TPA) See 13.7 and 22.7.2	100%	100%	100%	100%
Immersion suits See Section 13.8	None	None	100%	100%
Portable VHF	1	1	1	1

Area of operation Category	3	2	1	0
406MHz EPIRB See 13.9	None	None	1	1
SART See 13.10	1	1	1	1
General Alarm $\geq$ 15 persons	None	Yes	Yes	Yes
Life-Saving Signals Table 2 x SOLAS No. 2 or 1 x SOLAS No. 1	Yes	Yes	Yes	Yes
Training Manual See 22.8	Yes	Yes	Yes	Yes
Instructions for on-board maintenance See 22.10	None	None	Yes	Yes

13.2 Approved types

Unless expressly provided otherwise, all life-saving appliances should comply with SOLAS Chapter III and the LSA Code.

13.3 Life rafts

13.3.1 Category 0 or 1 yachts should be provided with life rafts of such number and capacity that, in the event of any one (1) life raft being lost or rendered unserviceable, there is sufficient capacity remaining for all on board.

13.3.2 Life rafts on yachts identified in 13.3.1 should be of an approved type equipped with "SOLAS A PACK" and contained in GRP containers. The life rafts should be stowed on the weather deck or in an open space and should be fitted with float free arrangements (hydrostatic release units) so that the life rafts float free and inflate automatically.

13.3.3 Yachts of Categories 2 or 3 should be provided with life raft capacity to accommodate at least the total number of persons on board.

13.3.4 Life rafts on yachts identified in 13.3.3 should be of either an Administration approved type or Offshore Racing Council (ORC) type. Life rafts should be equipped with "SOLAS B PACK" or, if ORC standard life rafts are fitted each life raft should be provided with a "grab bag" containing the following equipment:

(a) A second sea anchor and line;

(b) A first aid kit;

(c) One daylight signaling mirror;

(d) One signaling whistle;

(e) One radar reflector;

(f) Two red rocket parachute flares;

(g) Three red hand flares;

(h) One buoyant smoke signal;

(i) One thermal protective aid for each person on board; and

(j) One copy of the illustrated table of life-saving signals (SOLAS No.2).

Note:
To facilitate rapid abandonment in an emergency a 'grab bag' should be provided in a position accessible and known to all on board.

13.3.5 Life rafts on yachts identified in 13.3.3 may be either:

(a) In approved GRP containers stowed on the weather deck or in an open space and fitted with float free arrangements so that the life rafts float free and inflate automatically; or

(b) In GRP containers or valise stowed in readily accessible and dedicated weathertight lockers opening directly to the weather deck.

13.3.6 Life rafts provided on multihull sailing yachts should be located so that they are accessible when the yacht is either upright or after capsizing.

13.3.7 Inflatable life rafts, hydrostatic release units (other than the types which have a date limited life and are test "fired" prior to disposal) and gas inflatable lifejackets should be serviced annually at a service station approved by the manufacturer.

13.4 Dan-buoy

A Dan-buoy is only required to be provided on a sailing yacht.

13.5 Life buoys

On yachts carrying 15 or more persons, buoyant lines of not less than eighteen (18) metres in length should be attached to each of the two (2) life buoys not fitted with a light and a drogue. Life buoys should also be marked with the yacht's name and port of registry.

13.6 Lifejackets

13.6.1 Lifejackets that are not directly approved by the Administration should comply with US Coast Guard, MCA or equivalent CEN standard and be fitted with a whistle, light and retro-reflective tape.

13.6.2 If the lifejackets are inflatable an additional 10% or 2, whichever is the greater, should be provided.

13.6.3 A sufficient number of lifejackets should be provided for children carried on the yacht.

13.6.4 Gas inflatable lifejackets should be serviced annually at a service station approved by the manufacturer.

13.6.5 Orally inflated lifejackets should be pressure tested annually and, as far as is reasonable and practicable, visually examined weekly by the owner or managing agent to determine whether they are safe to use.

13.6.6 It is recommended where possible that the name of the yacht and port of registry is marked on individual life jackets.

13.7 Thermal Protective Aids

TPAs may be stowed in the 'grab bag' (see note 13.3.4).

13.8 Immersion Suits

13.8.1 Approved immersion suits should be provided for all persons onboard for yachts approved to operate in category 0 and 1. The Administration may grant an exemption if the yacht (although approved), does not operate in waters of surface temperatures below 20°C i.e. beyond Lat 30°N and Lat 30°S.

13.8.2 For yachts approved to operate in categories 2 and 3 although not compulsory, it is recommended that immersion suits are provided for all persons onboard.

13.8.3 Due consideration should be given to the provision of appropriate immersion/ thermal protection for children carried on board; these should be of the insulated type.

13.9 406MHz EPIRB

The 406MHz EPIRB should be installed in an easily accessible position ready to be manually released, capable of being placed in a life raft, and capable of floating free and automatic activation if the yacht sinks.

13.10 SART

A SART is not required if the 406MHz EPIRB provided has a 121.5MHz frequency transmitting capability and is of the non-float free type for placing in a life raft.

14. Fire Safety

The boundary of the engine space should, with special consideration given to fire flaps, be arranged to contain the fire extinguishing medium i.e. the engine space should be capable of being closed down in order that the fire extinguishing medium cannot escape. Any fans located within or feeding a machinery space should be capable of being stopped from outside the space in the event of a fire. Systems compromising automatic stopping of fans in the event of a fire should be supplemented with a manual override. Where it is not practical to have a machinery space, the engine should be enclosed in a box. The box should perform the same function as the machinery space boundaries as described above.

14.1 New Yachts

14.1.1 Yachts operating in areas of Category 0 and 1

14.1.1.1 In a yacht operating in areas of category 0 and 1, the engine space should be separated from accommodation spaces and storerooms containing combustible materials and liquids.

14.1.1.2 Combustible materials and liquids should not be stowed in the engine space. If noncombustible materials are stowed in the engine space they should be adequately secured against failing into machinery and cause no obstruction to access in or from the space.

14.1.1.3 In a yacht provided with a gas extinguishing system, the boundary of the engine space should be arranged so as to retain the fire extinguishing medium, i.e., the engine space should be capable of being closed down in order that the fire extinguishing medium can not penetrate to any other part (or to the outside) of the yacht.

14.1.1.4 Portlights or windows should not be fitted in the boundary of the engine space except that an observation port having a maximum diameter of 150mm may be fitted in an internal boundary bulkhead, provided that the port is of the non-opening type, the frame is constructed of steel or other equivalent material and the port is fitted with a permanently attached cover with securing arrangements. Only fire rated toughened safety glass should be used in an observation port.

14.1.2 Yachts operating in areas of Category 2 and 3

14.1.2.1 In a yacht operating in areas of category 2 and 3, the engine should be separated from accommodation spaces by a bulkhead or the engine should be enclosed within a box.

14.1.2.2 Combustible materials and liquids should not be stowed in the engine space. If noncombustible materials are stowed in the engine space they should be adequately secured against failing into machinery and cause no obstruction to access in or from the space.

14.1.2.3 An engine space should be so arranged that, in the event of a fire, the fire extinguishing medium injected can be retained for sufficient time to extinguish the fire.

14.1.3 Insulation

14.1.3.1 Thermal or acoustic insulation fitted inside the engine space should be of non-combustible material.

14.1.3.2 Insulation should be protected against impregnation by flammable vapors and liquids.

14.1.4 Fire extinguishing

Unless a fixed fire extinguishing system is fitted in the engine space, provision should be made in the boundary of the space for discharging fire extinguishing medium into the engine space.

14.1.5 Cleanliness and containment

14.1.5.1 Provision should be made to retain any oil leakage within the confines of the engine space.

14.1.5.2 In a yacht constructed of wood, measures should be taken to prevent absorption of oil into the structure.

14.1.5.3 In a situation when it is totally impracticable to fit a metal drip tray in way of the engine, the use of the engine bearers as a means of containment of the oil may be accepted when they are of sufficient height and have no limber holes. Provision should be made for the clearing of spillage and drainage collected in the engine space.

14.1.5.4 Efficient means should be provided to ensure that all residues of persistent oils are collected and retained on board for discharge to collection facilities ashore.

14.1.5.5 The engine space should be kept clean and clear of oily waste and combustible materials.

14.1.5.6 Reference should also be made to Section 27, Pollution Prevention.

14.1.6 Open flame gas appliances

14.1.6.1 Open flame gas appliances provided for cooking, heating or any other purposes should comply with the requirements of ISO 10239 or equivalent.

14.1.6.2 Installation of an open flame gas appliance should comply with the provisions of Annex 5.

14.1.6.3 Materials which are in the vicinity of open flame cooking or heating appliances should be noncombustible, except that these materials may be faced with any surface finish having a Class 1 surface spread of flame rating when tested in accordance with British Standard 476: Part 7: 1971, the FTP Code or any standard either replacing or equivalent to it.

14.1.6.4 Combustible materials and other surfaces that do not have a Class 1 surface spread of flame rating should not be left unprotected within the following distances of the cooker:

(a) 400mm vertically above the cooker, for horizontal surfaces, when the yacht is upright;

(b) 200mm above the top of the cooker, for horizontal surfaces, when the sailing yacht is heeled to 30 degrees; and

(c) 125mm horizontally from the cooker, for vertical surfaces.

14.1.6.5 Curtains or any other suspended textile materials should not be fitted within 600mm of any open flame cooking, heating or other appliance.

14.1.7 Furnishing materials

14.1.7.1 Only Combustion Modified High Resilient (CMHR) foams should be used in upholstered furniture and mattresses.

14.1.7.2 Upholstery fabrics should satisfy the fire test procedures of the applicable IMO Resolution, or its equivalent.

14.1.8 Smoke detection

14.1.8.1 In a yacht operating in category 0 and 1, efficient smoke detectors should be fitted in the engine space(s) and spaces containing open flame cooking and/or heating devices. For the detectors fitted within the engine space(s), they should be of a suitable type to identify the hazard and give an audible warning within the space as well as at the control position.

14.1.8.3 For all yachts categorised as operating in areas 2 and 3, where the total installed power (propulsion and electrical generation exceeds 750 kW. Efficient fire detectors should be fitted in the engine space(s). These should be of a suitable type to identify the hazard and give an audible warning within the space as well as at the control position.

14.1.8.2 On yachts operating in categories 2 and 3, an Authorised Surveyor may also request fitting of efficient smoke detectors in spaces containing open flame and/or heating devices.

14.1.8.2 Efficient smoke detectors may be required in order to comply with paragraph 14.1.9.2.

14.1.9 Means of Escape

14.1.9.1 Each accommodation space, which is either used for sleeping/rest or is affected by a fire risk situation, should be provided with two (2) means of escape. Only in an exceptional case should one (1) means of escape be accepted. Such a case would be when the single escape is to open air or when the provision of a second means of escape would be detrimental to the overall safety of the yacht.

14.1.9.2 In the exceptional case when a single means of escape is accepted, efficient smoke detectors should be provided as necessary to give early warning of a fire emergency that could cut off the single means of escape from a space.

14.2 Existing Yachts

14.2.1 In an existing yacht, the requirements of Section 14.1 should be reasonably complied with prior to a compliance certificate being issued.

14.2.2 In an existing yacht, replacement of existing upholstery or mattresses to satisfy paragraph 14.1.7 may be delayed until renewal.

15. Fire Appliances

For all yachts over ten metres the following fire appliances are to be provided:

(a) One hand fire pump (outside engine space or one (1) power driven fire pump (outside engine space)*, with sea and hose connections, capable of delivering one (1) jet of water to any part of the yacht through hose and nozzle.

(b) One fire hose of adequate length with 10mm nozzle and suitable spray nozzle.

(c) Fixed fire extinguishing in engine space that may consist of a portable extinguisher arranged to discharge into the space.

(d) Not less than two (2) multipurpose fire extinguishers to BS 5423 or equivalent with a minimum fire rating of 13A/113B or equivalent.

(e) At least two (2) fire buckets with lanyards. Buckets may be of metal, plastic or canvas and should be suitable for their intended service.

(f) One fire blanket in galley or cooking area (BS 6575 - light duty type or equivalent).

* This may be one (1) of the pumps required by Section 10, when fitted with a suitable change over arrangement that is readily accessible.

16. Radio Equipment

16.1 Radio Installation

16.1.1 A yacht should carry equipment for transmitting and receiving on the VHF Maritime Mobile band and for receiving regular shipping weather forecasts for the area of operation.

16.1.2 When the main aerial is fitted to a mast that is equipped to carry sails, an emergency aerial should be provided.

16.1.3 Table 1 lists the minimum and recommended radio equipment for the code area of operation categories.

16.1.4 A yacht operating in area Category 2 and 3, but in areas where there is a low density of shipping and radio communications centres on land and when the certainty of good VHF coverage is in doubt, should be provided with a radio installation required for yachts operating in category 0 and 1.

16.1.5 When the electrical supply to radio equipment is from a battery, charging facilities, or a duplicate battery of capacity sufficient for the voyage, should be provided. Battery electrical supply to radio equipment should be arranged such that radio communications should not be interrupted.

16.1.6 A card or cards giving a clear summary of the radio-telephone distress, urgency and safety procedures should be displayed in full view of the radiotelephone operating positions.

16.1.7 GMDSS equipment installed on a yacht should be provided with automatic positioning updates from the onboard navigational receiver, or procedures put in place to ensure positional information is manually updated at intervals not exceeding 4 hours.

16.1.8 GMDSS equipment should only be operated by a person in possession of a valid GMDSS operators license.

Table 1

Minimum and Recommended Radio Installation Requirement

Area of operation Category	3	2	1	0
(m = nautical miles)	< 30m	≥ 30m & < 100m	≥ 100m & <200m	≥ 200m
VHF fixed radio installation	1	1	1	1
Portable VHF	1	1	1	1
MF SSB radio installation with DSC	None	1*	1	1
Inmarsat Ship Earth Station (or an MF/HF transceiver with DSC)	None	None	Recommended	Recommended
Navtex Receiver	Recommended	Recommended	1	1

*** This may be substituted by a portable satellite telephone. Approval for the substitution will be given by the Administration only upon advice from the Authorised Surveyor and the receipt of a valid air time agreement.**

16.2 406MHz EPIRBs

Requirements for the carriage of a 406MHz EPIRB are given in Section 13.1, Table 1.

17. Navigation Lights, Shapes and Sound Signals

17.1 A yacht should comply with the requirements of the International Regulations for Preventing Collision at Sea, 1972 (COLREGS), as amended.

17.2 Sound signaling equipment should comply with the Regulations. A yacht of less than 12 metres in load line length, if accepted for registration, is not obliged to carry the sound signaling equipment required by the Regulations on the condition that some other means of making an efficient sound signal is provided.

17.3 If it can be demonstrated to the Authorised Surveyor that, for a particular yacht, full compliance with the Regulations is impracticable, application for consideration for equivalent alternatives should be made to IMMARBE.

17.4 Notes Regarding Table 1:

(a) Sidelights, stern light and all round lights have a range of 2 miles unless indicated otherwise.

(b) Range of all round white or anchor or Not Under Command lights is 2 miles in all cases.

(c) All lights (and whistles and bells when they are required to be carried) must be approved for the size of yacht on which they are fitted.

(d) For sailing vessel, attention should be paid to light arrangements when under power i.e. steaming lights in place of masthead ight.

(e) If a sailing yacht is using its engine as well as sails then a cone, apex downwards in the fore part of the yacht, should be displayed.

(f) In the case of open boats, vertical heights should be measured from the gunwhale, and in the case of inflatable boats, or boats fitted with a buoyant collar, from the top of the collar tubes.

17.5 Table Definitions:

The following definitions are relevant to table 1:

[1] Range of sidelight is 1 mile

[2] If not using a tricolour masthead lantern, a sailing vessel may show (in addition to other lights) two all-round lights near the masthead, the lower green and the upper red.

[3] By night, all round white where best seen; by day one black ball (0.6 metres) in diameter) in the fore part of the yacht.

[4] Size of the daytime shapes and distances apart may be reduced commensurate with size of vessel.

[5] By night, two all round red lights in a vertical line two metres apart and the lowest not less than four metres above the hull (weatherdeck); by day two black balls (0.6 metres in diameter) in a vertical line, 1.5 metres apart.

[6] The distances for the lights may be reduced to one metre apart and two metres above the hull (weatherdeck).

[7] By night two all round red lights in a vertical line two metres apart plus anchor light; by day three black balls (0.6 metre diameter) in a vertical line, 1.5 metres apart.

Table 1

Lights, Shapes and Sound Appliances

Overall Length	Power vessels when underway (and sailing vessels when under power, see section 17.4 note d)	Sailing vessels under sail	At anchor[3]	Not under command[5]	Aground[7]	Sound Appliances
10 – 12 metres	All round white + sidelights[1] OR Masthead (vis 2 miles) + sidelights[1] + stern light OR (if lights have to be offset from centreline) combined lantern sidelights plus either all round white or masthead and stern light	Sidelights[1] + sternlight OR Combined lantern at masthead[2] (tricolour)	Required[4]	Not required	Not required	Means to make an efficient sound signal required
12 – 20 metres	Masthead (vis 3 miles) + sidelights + stern light	Sidelights +stern light (sidelights may be combined) OR Combined lantern at masthead[2] (tricolour)	Required[4]	Required[4]	Required[4, 6]	Whistle an bell required
20 – 24 metres	Masthead (vis 5 miles) + sidelights + stern light	Sidelights + stern light may show (in addition to other lights) two all round lights near masthead, the upper red and the lower green	Required	Required	Required	Whistle and bell required

18. Navigational Equipment

18.1 Magnetic Compass

A yacht should be fitted with an efficient magnetic compass and valid deviation card (updated annually) complying with the following requirements as appropriate:

18.1.1 In a steel yacht, it should be possible to correct the compass for coefficients B, C and D and heeling error;

18.1.2 The magnetic compass or a repeater should be fitted with an electric light and so positioned as to be clearly readable by the helmsman at the main steering position;

18.1.3 Means should be provided for taking bearings as nearly as practicable over an arc of the horizon of 360 degrees. This requirement may be met by the fitting of a pelorus or, in a yacht other than a steel yacht, a hand bearing compass.

18.2 Other Equipment

All yachts should be provided with:

18.2.1 A navigation aid such as a global navigation satellite system or other terrestrial radio navigation system appropriate for the area of operation to update the yacht's position at all times;

18.2.2 An echo sounder; and

18.2.3 A distance measuring log; except that this need not be provided where the navigational aid in paragraph 18.2.1 provides reliable distance measurements in the area of operation of the yacht.

19. Miscellaneous Equipment

19.1 Nautical Publications

19.1.1 General

19.1.1.1 All yachts should carry up to date charts and, as appropriate, tide tables, a tidal stream atlas and a list of radio signals appropriate to the intended area of operation, and a copy of the international code of signals.

19.1.1.2 All charts should be of a scale to permits safe navigation in the areas of intended operation.

19.1.1.3 Electronic charts will be assessed by the Authorised Surveyor but unless an approved system is used will not be considered as a substitute for physical charts.

19.2 Signaling Lamp

A yacht should be provided with an efficient waterproof electric light suitable for signaling.

19.3 Radar Reflector

A yacht should carry a radar reflector complying with the specification ISO 8729:1987 Shipbuilding - Marine radar reflectors or any approved equivalent specification.

19.4 Measuring Instruments

19.4.1 All yachts should carry a barometer.

19.4.2 All monohull sailing yachts should be provided with an anemometer and an inclinometer.

19.4.3 A multihull sailing yacht should be provided with an anemometer providing a continuous indication of relative wind speed, with the display clearly visible at each control position.

19.5 Searchlight

All yachts should be provided with an efficient fixed and/or portable searchlight suitable for use in man-overboard search and recovery operations.

19.6 Wire Cutting Equipment

All sailing yachts should carry wire cutting equipment for use in the event of dismasting.

20. Anchors and Cables

20.1 General

The requirements given in Table 1 are for a yacht of normal form which may be expected to ride-out storms while at anchor and when seabed conditions may not be favorable.

Table 1
Anchors and Cables

Loa + Lwl 2	Anchor Mass		Anchor Cable Diameter			
			Main		Kedge	
	Main	Kedge	Chain	Rope	Chain	Rope
(metres)	(kg)	(kg)	(mm)	(mm)	(mm)	(mm)
10	13	6	8	12	6	10
11	15	7	8	12	6	10
12	18	9	8	14	8	12
13	21	10	10	-	8	12
14	24	12	10	-	8	12
15	27	13	10	-	8	12
16	30	15	10	-	8	12
17	34	17	10	-	8	14
18	38	19	10	-	8	14
19	42	21	12	-	10	14
20	47	23	12	-	10	14
21	52	26	12	-	10	14
22	57	28	12	-	10	16
23	62	31	12	-	10	16
24	68	34	12	-	10	16

Note: Chain cable diameter given is for short link chain. Chain cable should be sized in accordance with EN 24 565:1989 (covering ISO 4565:1986, anchor chains for small craft, or equivalent).

20.2 Anchors

20.2.1 The anchor sizes given in Section 20.1, Table 5 are for high holding power (HHP) types.

20.2.2 When a fisherman type of anchor is provided, the mass given in Table 6 should be increased by 75% but the diameter of the anchor cable need not be increased.

20.2.3 When a yacht has an unusually high windage, due to high freeboard, heavy rigging (e.g., square-rigger) or large superstructures, the mass of anchor given in Table 6 should be increased to take account of the increase in wind loading.

20.2.4 The diameter of the anchor cable should be appropriate to the increased mass of anchor.

20.2.5 When anchors are manufactured to imperial sizes, the metric equivalent of the anchor mass and the cable diameter should not be less than the value in Table 5.

20.3 Anchor Cables

20.3.1 The length of anchor cable attached to an anchor should be appropriate to the area of operation but generally should be not less than four (4) x the yacht load line length overall or thirty (30) metres, whichever is the longer, for each of the main and kedge anchors.

20.3.2 In a yacht of twelve (12) metres in load line length and over, the anchor cable for the main anchor should be of chain.

20.3.3 In a yacht of less than twelve (12) metres in load line length, the cable for main anchors and for kedge anchors may be of chain or rope.

20.3.4 When the anchor cable is of rope, there should be not less than ten (10) metres of chain between the rope and the anchor. The rope diameter given in Section 20.1, Table 6, is for nylon construction. When rope of another construction is proposed, the breaking load should be not less than that of the nylon rope specified in the table.

20.3.5 When cables are manufactured to imperial sizes, the metric equivalent of the anchor mass and the cable diameter should not be less than the value in Table 6.

20.4 Anchoring Arrangements

20.4.1 When an anchor mass is more than thirty (30) kg, a windlass should be provided for handling the anchor.

20.4.2 There should be a strong securing point on the foredeck and a fairlead or roller at the stem head that can be closed over the cable.

20.4.3 All yacht should be provided with at least two (2) anchors (one (1) main and one (1) kedge or two (2) main) and cables, subject to Section 20.1 and in accordance with the requirements of Table 6.

20.4.4 Anchors of equivalent holding power may be proposed and provided, subject to approval by the Authorised Surveyor.

20.5 Towlines

A yacht should be provided with a towline of not less than the length and diameter of the kedge anchor cable. The towline may be the warp for the kedge anchor.

21. Accommodation

21.1 General

21.1.1 Handholds and grab-rails

There should be sufficient handholds and grab-rails within the accommodation to allow safe movement around the accommodation when the yacht is in a seaway.

21.1.2 Securing of heavy equipment

21.1.2.1 Heavy items of equipment such as batteries, cooking appliance etc., should be securely fastened in place to prevent movement due to severe motions of the yacht.

21.1.2.2 For sailing yachts the securing should be sufficient that severe motions could include inversion of the yacht.

21.1.2.3 Stowage lockers containing heavy items should have lids or doors with secure fastening.

21.1.3 Escape arrangements

Means of escape from accommodation spaces should satisfy the requirements of paragraphs 5.3.1, 5.3.3 and 14.1.9.

21.1.4 Ventilation

Adequate means of ventilation should be provided to all accommodation spaces.

21.2 Yachts at Sea for more than 24 hours

When a yacht is intended to be at sea for more than 24 hours, an adequate standard of accommodation for all on board should be provided. In considering such accommodation, primary concern should be directed towards ensuring the health and safety aspects of persons, e.g., the ventilation, lighting, water services, galley services and the access/escape arrangements. In particular the following standards should be observed:

21.2.1 Ventilation

Mechanical ventilation should be provided to accommodation spaces which are situated completely below the level of the weather deck on yachts intended to make long international voyages or operate in tropical waters and which carry nine (9) or more berthed persons below deck. This is to include accommodation below the weather deck which has a coach roof arrangement. As far as practicable, such ventilation arrangements should be designed to provide at least six (6) changes of air per hour when the access openings to the spaces are closed.

21.2.2 Lighting

21.2.2.1 An electric lighting system should be installed which is capable of supplying adequate light to all enclosed accommodation and working spaces.

21.2.2.2 The system should be designed and installed in a manner that will minimize the risk of fire and electric shock.

21.2.3 Water Services

21.2.3.1 An adequate supply of fresh drinking water should be provided and piped to convenient positions throughout the accommodation spaces.

21.2.3.2 In addition, a dedicated emergency supply of drinking water should be carried to provide at least two (2) litres to each person on board.

21.2.4 Sleeping Accommodation

A bunk or cot should be provided for each person on board, and at least 50% of those provided should be fitted with lee boards or lee cloths.

21.2.5 Galley

21.2.5.1 A galley should be fitted with a means for cooking, a sink and adequate working surface for the preparation of food.

21.2.5.2 When a cooking appliance is gimballed, it should be protected by a crash bar or other means to prevent it being tilted when it is free to swing. A strap, portable bar or other means should be provided to allow the cook to be secured in position, with both hands free for working, when the yacht is rolling. Means should be provided to lock the gimballing mechanism to prevent movement when not in use.

21.2.5.3 There should be secure storage for food in the vicinity of the galley.

21.2.5.4 Refer to Sections 27.1 and 27.4 for possible further regulatory requirements.

21.2.6 Toilet Facilities

21.2.6.1 Adequate toilet facilities, separated from the rest of the accommodation, should be provided for persons on board.

21.2.6.2 In general, there should be at least one (1) marine type flushing water closet and one (1) wash hand basin for every 12 persons.

21.2.6.3 Refer to Section 27.3, Sewage.

21.2.7 Stowage Facilities for Personal Effects

Adequate stowage facilities for clothing and personal effects should be provided for each person on board.

22. Protection of Personnel

22.1 Deckhouses

A deckhouse used for accommodation of persons should be of sufficient construction to withstand the prevailing conditions.

22.2 Bulwarks, Guard Rails and Handrails

22.2.1 The perimeter of an exposed deck should be fitted with bulwarks, guard rails or guard wires of sufficient strength and height for the safety of persons on deck.

22.2.2 When the proper working of a sailing yacht may otherwise be impeded, bulwarks or two (2) courses of rails or taut wires should be fitted around the working deck and the height of the protection should be not less than 600mm above the deck. Rails or wires should be supported at intervals not exceeding 2.2 metres.

22.2.4 To protect persons from falling overboard, and when the proper working of the yacht is not impeded and there are persons frequently on the deck, bulwarks or three courses of rails or taut wires should be provided and the bulwark top or top course should be not less than 1000mm above the deck. Intermediate courses should be evenly spaced.

22.2.5 In a yacht fitted with a cockpit that opens aft to the sea, additional guardrails should be fitted so that there is no vertical opening greater than 500mm.

22.2.6 In a sailing yacht fitted with a headstay, a fixed or drop-nosed bow pulpit should be provided forward of the headstay of at least the same height as the guardrails, except in way of a substantial bowsprit. A drop-nosed pulpit with an opening wider than 250mm should be provided with a means of closure at guardrail height, for use at sea.

(a) In a sailing yacht fitted with a headstay, a pulpit should be provided forward and around the headstay of at least the same height as the adjacent guardrails.

(b) When it is desired to move forward of a pulpit to access a bowsprit or to assist with docking operations it should be permissible to arrange the pulpit with an opening in its forward-most part. In this case, an efficient means of closure of the opening and jackstays in accordance with 22.3.5 should be provided.

22.2.7 Access stairways, ladderways and passageways should be provided with handrails.

22.3 Safety Harnesses

22.3.1 A motor yacht should be provided with a minimum of two (2) safety harnesses. A sailing yacht should provide a safety harness for each person on board.

22.3.2 Efficient means for securing the life lines of safety harnesses should be provided on exposed decks, and grab-rails provided on the sides and ends of a deckhouse.

22.3.3 Fastening points for the attachment of safety harness life lines should be arranged having regard to the likely need for work on or above deck. In general, securing points should be provided in the following positions:

(a) Close to a companionway; and

(b) On both sides of a cockpit.

22.3.4 When guard rails or wires are not otherwise provided, jackstays (which may be fixed or portable) secured to strong points, should be provided on each side of the yacht to enable crew members to traverse the length of the weather deck in bad weather.

22.3.5 When a sailing yacht is provided with an open fronted pulpit, jackstays should be carried sufficiently far forward to protect persons working in the vicinity of the pulpit.

22.4 Toe Rails

When appropriate to the working of a yacht provided with a sailing rig, a toe rail of not less than 25mm in height should be fitted around the working deck.

22.5 Surface of Working Decks

22.5.1 The surface of a working deck should be non-slip.

22.5.2 Acceptable surfaces are: chequered plate; unpainted wood; a non-skid pattern molded into GRP; non-slip deck paint; or an efficient non-slip covering.

22.5.3 Particular attention should be paid to the surface finish of a hatch cover when it is fitted on a working deck and to sloping coach roof sides on sailing yachts where these effectively constitute a working deck when the sailing yacht is heeled.

22.6 Recovery of Persons from the Water

An over side boarding ladder or scrambling net which extends from the weather deck to at least 600mm below the operational waterline or other means to aid the recovery of an unconscious person from the water should be provided to the satisfaction of the Authorised Surveyor.

22.7 Personal Clothing

It should be the responsibility of an owner, operator, manager, or skipper that the following requirements for items of personal clothing should be met:

22.7.1 Each person on board a yacht should have protective clothing appropriate to the prevailing air and sea temperatures.

22.7.2 On a yacht that intends to operate in high latitudes, each person on board should have either an approved immersion suit or a dry suit of suitable quality to reduce the likelihood of hypothermia should the wearer enter the sea.

22.7.3 Each person on board a yacht should have footwear having non-slip soles, to be worn on board.

22.8 Training Manual

22.8.1 The yacht's training manual should include details of established safe working practices specific to the yacht, guidance on training for members of the crew, personal clothing and protection from injury, health and safety awareness, and prevention of pollution.

22.8.2 The training manual should contain instructions and information on the life-saving appliances provided in the yacht and on the best methods of survival in easily understood terms and illustrations where appropriate. Depending on the life-saving appliances provided, the following should be explained in reasonable detail:

(a) Donning of lifejackets, immersion suits, and thermal protective aids, as appropriate;
(b) Mustering at assigned stations;
(c) Boarding, launching and clearing survival craft, rescue boats, fast rescue boats, free-fall boats and inflated boats;
(d) Illumination in launching areas;
(e) Location and use of pyrotechnics;
(f) Use of all survival equipment;
(g) Use of all detection equipment;
(h) With the use of illustrations, the use of radio life-saving appliances;
(i) Use of sea anchors;
(j) Use of engine and accessories;
(k) Recovery of survival craft, rescue boats, fast rescue boats, free-fall boats and inflated boats including stowage and securing, where applicable;
(l) Hazards of exposure and the need for warm clothing;
(m) Best use of the survival craft facilities in order to survive;
(n) Methods of retrieval, including the use of helicopter rescue gear, breeches-buoy and shore life-saving apparatus and yacht's line-throwing apparatus;
(o) All other functions contained in the muster list and emergency instructions;
(p) Instructions for emergency repair of the life-saving appliances;

(q) Means of rescue arrangements;

(r) Marine evacuation systems, where applicable;

(s) Helicopter pick-up area operations, if applicable.

22.8.3 In addition to the requirements of paragraph 22.8.2 above, the skipper should routinely drill the crew who will be sailing on the voyage regarding the following:

(a) Location of life rafts and the method of launching;

(b) Procedures for the recovery of a person from the sea;

(c) First Aid;

(d) Procedures and operation of radios carried on board;

(e) Location of navigation and other light switches;

(f) Location and use of firefighting equipment on various types of fires;

(g) Method of starting, stopping, and controlling the main engine; and

(h) Method of navigating to a suitable port of refuge.

22.9 Safety Briefing

Before the commencement of any voyage the skipper should ensure that all persons on board are briefed on the stowage and use of personal safety equipment such as lifejackets, thermal protective aids and life buoys, and the procedures to be followed in cases of emergency.

22.10 Instructions for On-Board Maintenance

Instructions should be provided describing the maintenance procedures for all safety and firefighting appliances in easily understood terms and illustrated wherever possible. The instructions should include:

(a) A checklist for use when carrying out required inspections;

(b) Maintenance and repair instructions;

(c) A schedule of periodic maintenance;

(d) A diagram of lubrication points with the recommended lubricants;

(e) A list of replacement parts;

(f) A list of sources of spare parts; and

(g) A record of inspection and maintenance.

23. Medical Stores

A yacht should carry medical stores appropriate to the area of operation. Minimum requirements for medicines and medical equipment for each Category of operation are listed below.

23.1 For yachts given Categorisation for Area 0

23.1.1 Medicines

Reference number	Statutory treatment requirements	Recommended medicine and dosage strength representing best practice.	Recommended quantity for 10 persons
1. Cardio Vascular			
(a)	Cardio vascular analeptics Sympathomimetics	Adrenaline / Epinephrine injection BP 0.5ml adrenaline acid tartrate injection 1.0mg in 1ml (1 in 1000) and / or Epipen (Adrenaline 0.3mg)	10* 5
(b)	Anti-angina preparations	Glyceryl Trinitrate Spray 400 micrograms / metered 200 dose aerosol, and transdermal patches 5mg	1 unit 2
(c)	Diuretics	Frusemide / Furosemide i) 40 mg tablets ii) 10 mg in 1 ml inj. (2 ml ampule)	 28* 2
(d)	Anti-haemorrhagics if there are women with potential for child bearing working on board (including utertonics).	i) Phytomenadione (Vitamin K1) paediatric injection (0.2ml ampoule) ii) Ergometrine 500mcg , Oxytocin 5 units (1ml ampoule) (Syntometrine)	1* 2*
(e)	Anti hypertensive	Atenolol 50 mg tablets	28
2. Gastro Intestinal System			
(a)	Medicines for gastric and duodenal disorders • Histamine H2 receptor anti-ulcer antagonists • Antacid mucous mixture	 Cimetidine 400mg tablets Proprietary Antacid of choice	 60 As required
(b)	Anti-emetics	i) Prochlorperazine maleate 3mg buccal tablets ii) Promethazine hydrochloride 25mg per ml (1ml ampoules) Hyoscine hydrobromide 0.3 mg tablets or Cinnarizine 15 mg	50* 10* 60 60
(c)	Lubricant laxatives	Glycerol suppository mould 4 mg	12
(d)	Anti-diarrhoeals	Loperamide 2 mg capsules	30
(e)	Intestinal antiseptics	i) Trimethoprim 200mg tablets ii) Ciprofloxacin 500mg tablets iii) Metronidazole 400mg tablets	Use 7(b) Use 7(a)ii Use 7(e)
(f)	Haemorrhoide preparation	Proprietary preparation of choice	As required

Reference number	Statutory treatment requirements	Recommended medicine and dosage strength representing best practice.	Recommended quantity for 10 persons
3. Analgesics Anti-Spasmodics			
(a)	Analgesics, anti-pyretics and anti-inflammatory agents	i) Paracetamol 500 mg tablets and ii) Ibuprofen 400 mg tablets iii) Diclofenac sodium 50 mg suppository	100 100 10
(b)	Powerful analgesics	i) Codeine Phosphate 30mg tablets ii) Morphine Sulphate 10mg in 1ml injection (1ml ampoule) or Nalbuphine 10mg in 1ml injection	28 10 10
(c)	Spasmolytics	Hyoscine butylbromide 10mg tablets	56
4. Nervous System			
(a)	Anxiolitics	i) Diazemuls injection 5mg per ml, (2ml ampoules) ii) Diazepam 5mg tablets	5* 28*
(b)	Neuroleptics	i) Chlorpromazine hydrochloride 25mg injection ii) Chlorpromazine hydrochloride 25mg tablets	5* 28*
(c)	Seasickness remedies	Hyoscine Hydrobromide 0.3 mg tablets, or Cinnarizine 15 mg	Use 2(b)iii)
(d)	Anti-epileptics	Diazepam rectal dispenser 10mg in 2.5ml	5
5. Anti-allergics and Anti-anaphylatics			
(a)	H_1 Anti-histamines	Cetrirzine 10mg tablets	30*
(b)	Injectable / oral glucocorticoids	i) Hydrocortisone injection powder for reconstitution 100mg vial with 2ml water for injection / ready diluted 100mg in 1ml injection ii) Prednisolone 5mg tablets	3 28
6. Respiratory System			
(a)	Bronchospasm preparations	i) Salbutamol aerosol inhaler unit, giving 100 micrograms per metered inhalation + SPACER ii) Beclomethasone 100 micrograms per metered dose inhaler	200 inhalations 1
(b)	Anti-tussives	Proprietary cough mixture	As required
(c)	Medicines used for colds and sinusitis	Paracetamol 500mg tablets or Proprietary cold remedy	Use 3(a)i) As required
7. Anti-infection			
(a)	Antibiotics	i) Benzylpenicillin – benzylpenicillin sodium 600mg injection (powder for reconstitution in a rubber capped and metal topped vial) and water for injection 2ml ii) Ciprofloxacin (as hydrochloride) 500mg tablets iii) Cefuroxime injection 750mg vial and water for injection iv) Erythromycin 250mg tablets v) Doxycycline 100mg capsules	10 20 20 28 8
(b) (c)	Anti-bacterial / Urinary antiseptics	Trimethoprim 200mg tablets	14
(d)	Anti-parasitics	Mebendazole 100mg tablets	6*

Reference number	Statutory treatment requirements	Recommended medicine and dosage strength representing best practice.	Recommended quantity for 10 persons
(e)	Intestinal anti-infectives	Metronidazole suppositories 1g Metronidazole 500mg or 400mg tablets	10 21
(f)	Anti-tetanus vaccines and immunoglobuiln	Immunoglobulin i) Tetanus Vaccine (0.5ml ampoule) or Tetanus & Diphtheria Vaccine ii) Tetanus Immunoglobulin ampoule for injection	5* 1*
8. Compounds promoting rehydration, caloric intake and plasma expansion			
(a)	WHO Generic Formula	Sodium chloride & dextrose rehydration salts sachets of Oral Rehydration Salts, Formula A: BP Oral powder in sachet to provide Na=35mmol, K=20mmol, Cl-37mmol, CO3= 18mmol and glucose 200mmol when reconstituted in a litre of water, or Proprietary equivalent e.g. Dioralyte	1 box (16 – 20)
9. Medicines for external use			
(a)	Skin medicines		
	Antiseptic solutions	100 ml solution or pre-impregnated wipe containing 0.015% w/v chlorhexidine and 0.15% w/v cetrimide	1* bottle or 1 pack wipes
	Antibiotic ointments	Neomycin / Bacitracin cream 15g tube	1
	Anti-inflammatory and analgesic ointments	i) Hydrocortisone 1% cream 15g tube ii) Proprietary NSAID gel /ointment	2 As required
	Anti-mycotic skin creams	i) Benzoic ointment BP 50mg(benzoic acid 6%; salicylic acid 3%, in emulsifying ointment 15g ii) Miconazole nitrate 2% topical cream 30g iii) Clotrimazole 500mg pessary (if women onboard).	3 2 2
	Burn preparations	Silver Sulphadiazine 1% cream 50g tube	2
		Miscellaneous skin preparations i) Permethrin 1% in a base containing isopropylalcohol 20% Cream Rinse ii) Zinc ointment, BP (containing zinc oxide 15%) 25g iii) Potassium permanganate crystals 10g container / Permitabs pack	 2* 1* 1*
(b)	Eye medicines		
	- Antibiotic ointment - Antibiotic drops - Anti-inflammatory drops - Anaesthetic drops - Hypotonic drops - Diagnostic drops	Chloramphenicol 1% 4g tube All eye drops are recommended in Minimum (single dose) form: Neomycin sulphate 0.5% 0.5ml Dexamethasone sodium phosphate 0.1% 0.5ml Amethocaine hydrochloride 0.5% 0.5ml Pilocarpine nitrate 2% 0.5ml Fluorescein sodium 1% 0.5ml	4 20 20 20 20 20

Reference number	Statutory treatment requirements	Recommended medicine and dosage strength representing best practice.	Recommended quantity for 10 persons
(c)	Ear / Nasal medicines		
	Antibiotic / anti-inflammatory solution	Antibiotic eardrops containing in each ml; neomycin 3,400 units, polymixin B sulphate 10,000 units, hydrocortisone 50mg (5ml dropper bottle) Decongestant solution : Ephedrine nasal drops BP 0.5% ephedrine hydrochloride (10ml bottle)	1* 1*
(d)	Medicines for oral and throat infections		
	Antibiotic or antiseptic mouthwashes	Chlorhexidine gluconate 0.2% mouthwash 300 ml	1
(e)	Local anaesthetics		
	Local anaesthetics given by subcutaneous injection hydrochloride 1% 50 mg for injection	Lignocaine / Lidocaine	5
	Local anaesthetic gel	Lignocaine / Lidscaine gel 2%, chlorlexidine 0.25% in lubricant (syringe)	1
	Dental anaesthetics and antiseptic mixtures	i) Proprietary gel e.g. Bonjela ii) Oil of Cloves 10ml	1 1*

Note: Items marked with a * the specified quantity is regarded as sufficient regardless of crew size.

23.1.2 Medical Equipment

Statutory Requirements	Recommended Specification	Quantity
1. Resuscitation equipment		
Appliance for the administration of oxygen	Oxygen giving set comprising of the following:- 1) Oxygen reservoir (e.g. D Size 300ltr cylinder) 2) 1 flow meter unit giving a minimum setting of not less than 4ltrs per minute 3) 1 pressure regulating unit 4) 1 set of tubing 5) 5 x 24% oxygen disposable face masks 6) 5 x high concentration oxygen disposable face masks with a reservoir. Each part constructed so that it can only be assembled in the correct manner	1
Mechanical aspirator to clear upper respiratory passages	Aspirator to clear airways (manual, hand operated) + 2 catheters	1
Equipment for mouth to mouth resuscitation	Pocket face mask with valve and O2 inlet Guedal Airway Sizes 3 & 4	1

Statutory Requirements	Recommended Specification	Quantity
2. Dressing and suturing equipment		
Disposable skin stapler /or suture kit	1) Sterile non-absorbable sutures swaged to a 6 (including staple remover) half circle needle with a cutting edge 2 sizes e.g. 16mm & 26mm	6
	2) Sterile absorbable sutures swaged to a 3 half circle needle 1 size e.g. 26mm	3
Adhesive elastic bandage	Adhesive elastic bandage 7.5cm x 4m	4
	Crepe bandage 7.5cm x 4m	4
Tubular gauze bandage, for finger dressings	20m length with applicator	1
Disposable gloves	Latex free, vinyl	25 pairs
Adhesive dressings	Assorted sterile	40
Sterile bandages with unmedicated dressings (Ambulance dressings)	(1) medium, No.1 (12x10) cm (2) large, No.2 (20x15) cm (3) extra large, No.3 (28x20) cm	5 5 4
Adhesive sutures	75mm adhesive suture strips	6
Sterile gauze swabs	Packet containing 5 sterile gauze pads size 7.5cm x 7.5cm	10
Sterile sheet for burns victims		1
Triangular sling / bandage		4
Paraffin gauze dressings, size 10cm x 10cm		40
3. Instruments		
Disposable scalpels	e.g. 10 blades	2
Stainless steel instrument box		1
Scissors	Stainless steel dressing scissors Sharp pointed scissors	1
Dissecting forceps	Toothed	1
Haemostatic clamps		1
Needle forceps		1
Disposable razors		5
4. Examining and monitoring equipment		
Disposable tongue depressors		10
Reactive strips for urine analysis	e.g. Mulistix	1 pack
Temperature charts		1 pad
Medical evaluation reports		1 pad
Pregnancy test kit	When women on board	1
Stethoscope		1
Aneroid sphygmomanometer		1
Standard clinical thermometer		3
Hypothermic thermometer low reading rectal thermometer		1
Sputum cup with cover	Disposable	2
Specimen jars	Strong glass or plastic with airtight lid 50 ml with blank labels	2
5. Equipment for injection, perfusion, puncture and catheterization		
Bladder drainage	Bladder drainage set (including bag, spigots and tube)	1
Rectal drip set		1
Urine drainage bag		Use bladder drainage set
Disposable syringes	2ml, 5ml, 10ml	10
Disposable hypodermic needles	(21G) 0.8mm and (25G) 0.5mm	30
"Sharps" disposal box	1 litre size	1

Statutory Requirements	Recommended Specification	Quantity
Catheter	1) Foley type 16 Charriere guage, 5 ml balloon (short / medium term use in adults) 2) Nelaton size 16 Charriere guage (with no balloon) 3) Penile sheath set	1 1 1
6. General Medical Equipment		
Bedpan	(stainless steel or sterilisable plastic)	1
Hot water bottle	With fabric cover	1
Urine bottle (urinal)		1
Icebag		1
7. Immobilisation and setting equipment		
Malleable finger splint		1
Malleable forearm and hand splint		1
Splints – simple, vacuum (inflatable only if others unavailable)	Set of four (half leg, full leg, half arm and full arm)	1
Thigh splint - (Traction)	e.g. Thomas splint, Donway etc	1
Collar for neck immobilisation – (semi-rigid)	Adult size pack of 3, small, medium and large or adjustable collar	1
8. **Disinfection, Disinsectization and Prophylaxis**		
Water – disinfection compound -	In liquid form	5
Liquid insecticide Powder insecticide	In liquid form	5

23.1.3 Recommended Additional Medical Equipment

Recommended Additional Equipment	Quantity
Face masks disposable	5
Plastic measuring jug 1/2 litre size	1
Disposable paper towels	100
Latex free sterile surgical disposable gloves (large)	5 pairs
Waterproof plastic sheeting, size 1m x 2m	2
Lotion bowl (size at least 200mm x 90mm, stainless steel or sterilisable plastic, to be marked "medical")	1
Kidney dish (size 250mm stainless steel or sterilisable plastic)	1
Safety pins, rustless medium	6
Magnifying glass 7.5cm diameter with handle	1
Nail brush	1
Body bag – large size	1
Vessels in malarial areas only – microscope slides in individual transit containers	5
1) Excavator double ended Guys' pattern G2 2) Filling paste inserter (for inserting filling paste into the tooth) 3) Dental mirror size 4 on handle 4) Cavit (temporary dental filling) tube	1 set of all items
Kit for protection against blood transmitted diseases (to be carried in all vessels trading in malarial areas where medical facilities are limited and emergency shore based treatment is necessary) (To be kept in heavy gauge polythene bag, and labelled "to be used only for the treatment of...." Insert the name of the seafarer going ashore for emergency treatment). Each kit to contain the following : (1) 10 x 2 ml syringes (2) 10 x 10 ml syringes (3) 20 x 21G 0.8mm needles (4) 1 blood giving set (5) 1 blood taking set (6) pack of pre injection site swabs (7) Disposable latex free gloves 2 pairs (large size)	1 kit

23.2 For yachts given Categorisation for Area 1

23.2.1 Medicines

Reference number	Statutory Treatment Requirements	Recommended medicine and dosage strength representing best practice.	Recommended quantity for 10 persons
1. Cardio Vascular			
(a)	Cardio vascular analeptics Sympathomimetics	Adrenaline / Epinephrine injection BP 0.5ml adrenaline acid tartrate injection 1.0mg in 1ml (1 in 1000) and / or Epipen (Adrenaline 0.3mg)	10 5
(b)	Anti-angina preparations	Glyceryl Trinitrate Spray 400 micrograms / metered 200 dose aerosol and transdermal patches 5mg	1 unit 2
(c)	Diuretics	Frusemide / Furosemide 40 mg tablets	 28
(d)	Anti-haemorrhagics if there are women with potential for child bearing working on board (including utertonics).	i) Phytomenadione (Vitamin K1) paediatric injection (0.2ml ampoule) ii) Ergometrine 500mcg , Oxytocin 5 units (1ml ampoule) (Syntometrine)	1* 1*
2. Gastro Intestinal System			
(a)	Medicines for gastric and duodenal disorders • Antacid mucous mixture	 Proprietary Antacid of choice	 As required
(b)	Anti-emetics	i) Prochlorperazine maleate 3mg buccal tablets Hyoscine hydrobromide 0.3 mg tablets or Cinnarizine 15 mg	50* 60 60
(d)	Anti-diarrhoeals	Loperamide 2 mg capsules	30
(e)	Intestinal antiseptics	i) Trimethoprim 200mg tablets ii) Ciprofloxacin 500mg tablets iii) Metronidazole 400mg tablets	Use 7(b) Use 7(a)ii Use 7(e)
(f)	Haemorrhoide preparation	Proprietary preparation of choice	As required
3. Analgesics Anti-Spasmodics			
(a)	Analgesics, anti-pyretics and anti-inflammatory agents	i) Paracetamol 500 mg tablets and ii) Ibuprofen 400 mg tablets	50 50
(b)	Powerful analgesics	i) Codeine Phosphate 30mg tablets ii) Morphine Sulphate 10mg in 1ml injection (1ml ampoule) or Nalbuphine 10mg in 1ml injection	28 10 10
(c)	Spasmolytics	Hyoscine butylbromide 10mg tablets	56
4. Nervous System			
(b)	Neuroleptics	Chlorpromazine hydrochloride 25mg tablets	28*
(c)	Seasickness remedies	Hyoscine Hydrobromide 0.3 mg tablets, or Cinnarizine 15 mg	Use 2(b)iii)
(d)	Anti-epileptics	Diazepam rectal dispenser 10mg in 2.5ml	5

Reference number	Statutory Treatment Requirements	Recommended medicine and dosage strength representing best practice.	Recommended quantity for 10 persons
5. Anti-allergics and Anti-anaphylatics			
(a)	H_1 Anti-histamines	Cetrirzine 10mg tablets	30*
(b)	Injectable / oral glucocorticoids	i) Hydrocortisone injection powder for reconstitution 100mg vial with 2ml water for injection/ready diluted 100mg in 1ml injection	1
		ii) Prednisolone 5mg tablets	28
6. Respiratory System			
(a)	Bronchospasm preparations	i) Salbutamol inhaler 100 micrograms per metered dose. 200 dose inhaler with volumatic	1
		ii) Beclomethasone 100 micrograms per metered dose inhaler	1
(b)	Anti-tussives	Proprietary cough mixture	As required
(c)	Medicines used for colds and sinusitis	Paracetamol 500mg tablets or Proprietary cold remedy	Use 3(a)i) As required
7. Anti-infection			
(a)	Antibiotics	i) Benzylpenicillin – benzylpenicillin sodium 600mg injection (powder for reconstitution in a rubber capped and metal topped vial) and water for injection 2ml	2
		ii) Ciprofloxacin (as hydrochloride) 500mg tablets	10
		iii) Erythromycin 250mg tablets	28
(b) (c)	Anti-bacterial / Urinary antiseptics	Trimethoprim 200mg tablets	14
(d)	Anti-parasitics	Mebendazole 100mg tablets	6*
(e)	Intestinal anti-infectives	Metronidazole 500mg or 400mg tablets	21
(f)	Anti-tetanus vaccines and immunoglobuiln	Tetanus Vaccine (0.5ml ampoule) or Tetanus & Diphtheria Vaccine	1*
8. Compounds promoting rehydration, caloric intake and plasma expansion			
(a)	WHO Generic Formula	Sodium chloride & dextrose rehydration salts sachets of Oral Rehydration Salts, Formula A: BP Oral powder in sachet to provide Na=35mmol, K=20mmol, Cl-37mmol, CO3= 18mmol and glucose 200mmol when reconstituted in a litre of water, or Proprietary equivalent e.g. Dioralyte	1 box (16 – 20)
9. Medicines for external use			
(a)	Skin medicines		
	Antiseptic solutions	100 ml solution or pre-impregnated wipe containing 0.015% w/v chlorhexidine and 0.15% w/v cetrimide	1 bottle or 1 pack wipes
	Antibiotic ointments	Neomycin / Bacitracin cream 15g tube	1
	Anti-inflammatory and analgesic ointments	Proprietary NSAID gel /ointment	As Required
	Anti-mycotic skin creams	i) Benzoic ointment BP 50mg(benzoic acid 6%; salicylic acid 3%, in emulsifying ointment 15g	1
		ii) Miconazole nitrate 2% topical cream 30g	1
		iii) Clotrimazole 500mg pessary (if women onboard).	1
	Burn preparations	Silver Sulphadiazine 1% cream 50g tube	1

Reference number	Statutory Treatment Requirements	Recommended medicine and dosage strength representing best practice.	Recommended quantity for 10 persons
(b)	Eye medicines		
	- Antibiotic ointment	Chloramphenicol 1% 4g tube	1
		All eye drops are recommended in Minimum (single dose) form:	
	- Antibiotic drops	Neomycin sulphate 0.5% 0.5ml	20
	- Anti-inflammatory drops	Dexamethasone sodium phosphate 0.1% 0.5ml	20
	- Anaesthetic drops	Amethocaine hydrochloride 0.5% 0.5ml	20
	- Hypotonic drops	Pilocarpine nitrate 2% 0.5ml	20
	- Diagnostic drops	Fluorescein sodium 1% 0.5ml	20
(c)	Ear / Nasal medicines		
	Antibiotic / anti-inflammatory solution	Antibiotic eardrops containing in each ml; neomycin 3,400 units, polymixin B sulphate 10,000 units, hydrocortisone 50mg (5ml dropper bottle)	1*
		Decongestant solution : Ephedrine nasal drops BP 0.5% ephedrine hydrochloride (10ml bottle)	1*
(d)	Medicines for oral and throat infections		
	Antibiotic or antiseptic mouthwashes	Chlorhexidine gluconate 0.2% mouthwash 300 ml	1
(e)	Local anaesthetics		
	Local anaesthetics given by subcutaneous injection hydrochloride 1% 50 mg for injection	Lignocaine / Lidocaine	5
	Dental anaesthetics and antiseptic mixtures	i) Proprietary gel e.g. Bonjela	1
		ii) Oil of Cloves 10ml	1*

Note:
Items marked with a * the specified quantity is regarded as sufficient regardless of crew size.

23.2.2 Medical Equipment

Statutory Requirements	Recommended Specification	Quantity
1. Resuscitation equipment		
Appliance for the administration of oxygen	Oxygen giving set comprising of the following:- 1) Oxygen reservoir (e.g. D Size 300ltr cylinder) 2) 1 flow meter unit giving a minimum setting of not less than 4ltrs per minute 3) 1 pressure regulating unit 4) 1 set of tubing 5) 5 x 24% oxygen disposable face masks 6) 5 x high concentration oxygen disposable face masks with a reservoir. Each part constructed so that it can only be assembled in the correct manner	1
Mechanical aspirator to clear upper respiratory passages	Aspirator to clear airways (manual, hand operated) + 2 catheters	1
Equipment for mouth to mouth resuscitation	Pocket face mask with valve and O2 inlet Guedal Airway Sizes 3 & 4	1

Statutory Requirements	Recommended Specification	Quantity
2. Dressing and suturing equipment		
Adhesive elastic bandage	Adhesive elastic bandage 7.5cm x 4m	1
	Crepe bandage 7.5cm x 4m	4
Tubular gauze bandage, for finger dressings	20m length with applicator	1
Disposable gloves	Latex free, vinyl	25 pairs
Adhesive dressings	Assorted sterile	40
Sterile bandages with unmedicated dressings (Ambulance dressings)	(1) medium, No.1 (12x10) cm (2) large, No.2 (20x15) cm (3) extra large, No.3 (28x20) cm	3 3 2
Adhesive sutures	75mm adhesive suture strips	6
Sterile gauze swabs	Packet containing 5 sterile gauze pads size 7.5cm x 7.5cm	5
Sterile sheet for burns victims		1
Triangular sling / bandage		4
Paraffin gauze dressings, size 10cm x 10cm		10
3. Instruments		
Stainless steel instrument box		1
Scissors	Stainless steel dressing scissors Sharp pointed scissors	1 1
Dissecting forceps	toothed	1
Haemostatic clamps		1
4. Examining and monitoring equipment		
Disposable tongue depressors		10
Temperature charts		1 pad
Stethoscope		1
Aneroid sphygmomanometer		1
Standard clinical thermometer		1
Hypothermic thermometer low reading rectal thermometer		1
5. Equipment for injection, perfusion, puncture and catheterization		
Disposable syringes	2ml, 5ml, 10ml	5 of each
Disposable hypodermic needles	(21G) 0.8mm and (25G) 0.5mm	15
"Sharps" disposal box	1 litre size	1
6. Immobilisation and setting equipment		
Malleable finger splint		1
Malleable forearm and hand splint		1
Splints – simple, vacuum (inflatable only if others unavailable)	Set of four (half leg, full leg, half arm and full arm)	1
Thigh splint - (Traction)	e.g. Thomas splint, Donway etc	1
Collar for neck immobilisation – (semi-rigid)	Adult size pack of 3, small, medium and large or adjustable collar	1

23.2.3 Recommended Additional Medical Equipment

Recommended Additional Equipment	Quantity
Face masks disposable	6
Plastic measuring jug 1/2 litre size	1
Disposable paper towels	100
Latex free sterile surgical disposable gloves (large)	5 pairs
Waterproof plastic sheeting, size 1m x 2m	1
Safety pins, rustless medium	6
Magnifying glass 7.5cm diameter with handle	1
Nail brush	1
Stretcher equipment (A system for trauma management, i.e. immobilisation and stretcher equipment most suited for treatment on the vessel concerned)	1
Body bag – large size	1
Vessels in malarial areas only – microscope slides in individual transit containers	5

23.3 For yachts given Categorisation for Areas 2 and 3

23.3.1 Medicines

Statutory Treatment Requirements	Recommended medicine and dosage strength representing best practice.	Recommended quantity for 10 persons or per liferaft
Cardio Vascular		
Anti-angina preparations	Glyceryl Trinitrate Spray 400 micrograms / metered 200 dose aerosol	1 unit
Gastro intestinal system		
Anti-emetics	Hyoscine hydrobromide 0.3 mg tablets or Cinnarizine 15 mg	60 60
Anti-diarrhoeals	Loperamide 2 mg tablets	30
Analgesics and Anti-spasmodics		
Analgesics, anti-pyretics and anti-inflammatory agents	iv) Paracetamol 500 mg tablets and v) Ibuprofen 400 mg tablets	50 50
Nervous system		
Seasickness remedies	Hyoscine Hydrobromide or Cinnarizine	Use medicines intended for gastro intesintal system
Medicines for external use		
Skin Medicines		
- Antiseptic solutions	100 ml solution or pre-impregnated wipe containing 0.015% w/v chlorhexidine and 0.15% w/v cetrimide	1 bottle or 1 pack wipes
- Burn preparations	Proprietary antiseptic cream	1

23.3.2 Medical Equipment

Statutory Requirements	Recommended Specification	Quantity
Resusitation Equipment		
Mask for mouth to mouth resuscitation	Pocket face mask	1
Dressing and suturing equipment		
Adhesive elastic bandage	Adhesive elastic bandage 7.5 cm x 4 m	1
Disposable polyethylene gloves	Latex free, vinyl	5 prs
Adhesive dressings	Assorted, sterile	20
Sterile bandages with unmedicated dressings (Ambulance dressings)	(1) medium, No.1 (12 x 10) cm (2) large, No.2 (20 x 15) cm (3) extra large No.3 (28 x 20) cm	6 2 2
Sterile gauze swabs	Packet containing 5 sterile gauze pads size 7.5 cms x 7.5 cms	1
Recommended Additional Items		
	Scissors stainless steel or sterile disposible	1 pr
	Triangular bandages about 90 cm x 127 cm	4
	Medium safety pins, rustless	6
	Sterile paraffin gauze dressings	10
	Plastic burns bags	1

First Aid Instructions or a First Aid Manual (e.g. St John's, Red Cross, Red Crescent, St Andrew's) should also be included with the Medical Stores.

24. Tenders (Dinghies)

24.1 An inflatable tender is not required to meet the requirements for inflatable boats or rigid inflatable boats.

24.2 A tender should be clearly marked with the number of people of mass 75 kg that it can safely carry and with the name of the parent yacht.

24.3 An inflatable tender should be fit for the purpose intended, regularly inspected by the owner or managing agent and maintained in a safe condition.

24.4 A sailing yacht should carry (or tow) one or more rigid or inflatable tenders.

25. Sailing Vessel Sails and Spars

25.1 Efficient storm sails should be carried which are capable of taking a sailing yacht to windward in heavy weather.

25.2 The condition of spars and rigging should be periodically examined by a competent person. The frequency of examination will depend on the nature of the rig and its use. As a minimum, a detailed spars and standing rigging visual inspection should be carried out at least once during the term of the certificate and a report presented to the Authorised Surveyor. More frequent examinations may be considered necessary, at the discretion of the Administration. Chain plates and their attachments to hull structure should be visually examined at least every five years (5) and more frequently if justified by usage.

26. Yachts Operating under Race Rules

26.1 Motor yachts

26.1.1 A yacht chartered or operated commercially solely for the purpose of racing need not comply with the provisions of this Code provided that, when racing, it is racing under the rules of the Union Internationale Motonautique and the affiliated national authority in the country where the race is taking part.

26.1.2 Relief from compliance with the provisions of this Code that is permitted by paragraph 26.1.1 does not apply to a motor yacht taking part in a recreational event or an event created and organized with intent to avoid the provisions of this Code.

26.2 Sailing yachts

26.2.1 A sailing yacht chartered or operated commercially solely for the purpose of yacht racing need not comply with the provisions of the Code provided that when racing:

(a) It is racing under the rules of the International Yacht Racing Union or equivalent; or

(b) If it is racing offshore, it complies with the special regulations of the Offshore Racing Council or the race organizing committee or equivalent; and

(c) If it is a yacht of a national or an international class, which complies with the appropriate class rules.

26.2.2 Relief from compliance with the provisions of the Code that is permitted by 26.2.1 does not apply to a sailing yacht taking part in:

(a) A sail training race;

(b) A recreational event; or

(c) An event created and organized with intent to avoid the provisions of this Code.

27. Pollution Prevention

27.1 Requirements

27.1.1 A yacht complying with the Code should also comply with national, international, regional and local requirements for the prevention of marine pollution that are applicable to the area in which the yacht is operating.

27.1.2 Responsibility for the yacht to be properly equipped and maintained to meet the prevailing requirements rests with the owner or managing agent.

27.1.3 It is also the responsibility of the owner or managing agent to ensure that a demise charterer of a yacht receives up-to-date and adequate information on prevention of pollution in the area in which the demise charterer intends to operate. The information may include the need to seek advice from local authorities, for which contact points should be given.

27.2 Oil

Means to prevent pollution by oil should be provided which are acceptable to the Administration and authorities in the area in which a yacht operates. All yachts must maintain an oil record book.

27.3 Sewage

When the direct overboard discharge from a water closet is prohibited by authorities in an area of operation, the provision of “holding tanks” of sufficient capacity to store waste for discharge to shore facilities may be needed for a yacht to comply.

27.4 Garbage

27.4.1 The disposal of plastics into the sea is prohibited.

27.4.2 The disposal of garbage other than plastics is prohibited except where it is made as far from the nearest land as is practicable, and

(a) In the case of materials which will float, not less than 25 miles from the nearest land; or

(b) In the case of food wastes and all other garbage including paper products, rags (non-oily), glass, metal, bottles, crockery and similar refuse, not less than 12 miles or, if such wastes and other garbage have been ground or comminuted to the required standard, not less than 3 miles from the nearest land.

27.4.3 Arrangements for the retention of garbage on board and for discharge to shore facilities should be provided. Arrangements should be varied as necessary to comply with special requirements that may be applied by authorities in the area in which a yacht operates.

28. Safety Management

Yachts under 24 metres are not required to comply with the IMO International Safety Management (ISM) Code. In order to create a safety culture onboard yachts of this size, IMMARBE has produced useful Guidelines for the development and implementation of an effective safety management system. These guidelines can be found at http://www.immarbe.com/yachts/guide_dev_implement.html.

29. Security

Yachts under 24 metres are not required to comply with the IMO International Ship & Port Facility Security Code (ISPS). As this has been identified by IMMARBE as a weak area within the present legislation, the Administration has produced useful Guidelines for an effective small yacht security management system. These guidelines can be found at http://www.immarbe.com/yachts/guide_ship_security.html.

PART C - IMMARBE'S ADMINISTRATIVE STANDARDS

Part C, Section 1 - Yacht Registration with IMMARBE - Summary of Requirements

1. Introduction

This Section summarizes the requirements for the registration of a yacht with IMMARBE.

2. Application for Registration

Applications may be submitted to IMMARBE's Head office in Belize at:

Contact address: Marina Towers, Suite 204
Newtown Barracks, Belize City, Belize C.A.
Mailing address: P.O. Box 1765, Belize City, Belize C.A.
Tele fax: Fax #: 501-223-5048/5070
Email: immarbe@btl.net; immarbe@immarbe.com
or to any of IMMARBE's designated offices worldwide, the contact details of which are shown on www.immarbe.com/contacts.html.

3. Maritime Legislation

The maritime legislation is listed in Annex 2 of this Code.

4. Eligibility

Any person or body corporate of any nationality may apply for the registration of a yacht in Belize.

5. Registration

This may be a provisional or permanent registration, however, the owner may wish to proceed with permanent registration from the outset provided all applicable requirements are met.

5.1 Provisional registration

Provisional Registration is valid for up to six months. Compliance with the following is required:

- Completed application form for registration
- Completed application form for maritime ship station license
- A copy of an official document providing ownership, in the form of a Bill of Sale, Previous Certificate of Registry, Builder's Certificate, Court Auction Document or Memorandum of Agreement, accompanied by the Protocol of Delivery and Acceptance

- Copy of vessel's deletion certificate from the previous Registry or permission to transfer or delete or consent to transfer Registry from the current Registry
- A power of attorney appointing a shipping agent in Belize must be submitted. Shipping Agents in Belize act as an "assured communication link with owners" in accordance with the requirements of the Registration of Merchant Shipping Act as well as the provisions of Article 10(2) of the U.N. Convention on the Conditions of Registration of Ships
- Declaration concerning the vessel's intended use (commercial or private) as well as the area of operation. Such declaration can be issued on a company letterheaded paper and signed by the owner, operator or their manager. It is an offence under IMMARBE's Disciplinary Regulations to register a yacht as private yacht when it is in fact in commercial use
- Details of the authorized Recognized Organization or individual Surveyor who will be responsible for surveying the yacht on behalf of our Administration and the issuance of the relevant certificates required by this Code
- Appointment of an authorized Radio Accounting Authority as listed on www.immarbe.com/recorg.html for the settlement of vessel's radio accounts
- ISM & ISPS forms (where applicable)
- Evidence of Hull, Machinery and Third Party Limited Liability Insurance Cover
- The Manning and Personnel Certification as well as the Survey, Certification, Inspection requirements as referred to in Part C Sections 2 and 3 of this Code
- Payment of the respective registration fees which are shown on www.immarbe.com/yachts/taxesfees.html

5.2 Permanent registration

5.2.1 The following is a list of documents which must be submitted for the permanent registration of a yacht which is already registered provisionally.

- Original or certified true copy of a duly notarized Bill of Sale.
- Original or certified true copy of a duly notarized Power of Attorney executed by owner thereby appointing a Shipping Agent in Belize.
- Original copy of the Deletion certificate from previous Registry.
- Copies of all certificates issued on behalf of IMMARBE and referred to in Part C Sections 2 and 3 of this Code.

5.2.2 Yachts which are proceeding directly for permanent registration must submit all the documents listed under 5.1 (Provisional Registration)and where applicable the originals as opposed to copies of the documents listed in 5.2.1.

All documents must be in the English language or, if not in English, accompanied by an English translation thereof.

N.B: It is a condition of registration that all yachts should comply with the national legislation and regulations of each State in whose territorial waters they operate.

6. Insurance Requirements

Every commercial yacht to which this Code applies should hold hull and machinery insurance for the yacht itself and any other equipment carried thereon e.g. jet skis etc. Also it should have third party liability insurance including cover for all persons who are part of the yacht's complement onboard and in respect of any sporting activities in which any persons onboard will engage. Evidence of cover will be required at the time of provisional/permanent registration. These insurance requirements are strongly recommended for private yachts.

Part C, Section 2 - Manning and Personnel Certification

General

This Section gives information relating to the required manning and operation of small motor yachts in commercial use.

The Administration recommends that operators of private yachts comply with these manning requirements.

1. Exemption

Yachts under 24 metres being commercially operated motor yachts as defined in Part A Section 2 of this Code, and which operate exclusively in the national waters of only one country and which comply with the requirements of this Code will be exempt from the requirements for minimum safe manning certification, provided the manning of the yacht is in accordance with the standards given in Section 2.0 below. However, such commercial yachts which are engaged in international voyages should have a Minimum Safe Manning Certificate.

2. Minimum Qualifications of the Person in Charge of the Yacht (Skipper) and of the Additional Persons Required to be Onboard

2.1 General

Any person appointed as a skipper must be a minimum of 18 years of age.

2.2 Endorsement of Certificates

2.2.1 All certificates of competency, yachtmasters, coastal skipper and/or service should carry the endorsement - “valid for commercial yachts of up to 24 metres”. These should be submitted to IMMARBE for endorsement in accordance with our national regulations. For details contact IMMARBE’s Head Office in Belize at immarbe@btl.net .

Officers who have Certificates of Competency issued by Administrations that are listed in the IMO List of Parties to the STCW 1978 Convention, as amended will be accepted and endorsed accordingly.

2.3 Table of Minimum Manning and Qualifications Required

	Distance From Safe Haven						
Person	<20 miles	<30 miles	<60 miles	<100 miles	<150 miles[5]	<200 miles[5]	Unlimited[5]
Skipper	One[1]	One[2]	One[2]	One[2]	One[2]	One[4]	One[4]
Additional Crew member	0	0	One[3]	One[3]	One[1]	One[2]	One[2]

Table Definitions:

[1] To be qualified to RYA Coastal Skipper or equivalent

[2] To be qualified to RYA Yacht Master Offshore or equivalent

[3] Deemed by the Skipper to have relevant experience for the position

[4] To be qualified to Yacht Master Ocean or equivalent

[5] One of the persons referred to above should be familiar with the operation and maintenance of the main propulsion machinery of the yacht, and should have attended an Approved Engine Course (AEC).

Equivalencies to RYA qualifications will be assessed by the Administration on a case by case basis.

Qualifications which limit the distance from safe haven to less than the categories specified above will result in a corresponding limitation to the operating range of the yacht.

2.4 Radio Qualifications

Every yacht should carry at least one (1) person holding a Radio Operator's Certificate suitable for the radio equipment on board.

2.5 Medical Fitness Certificates

All crew should hold a medical fitness certificate issued by a licensed physician.

2.6 Basic Sea Survival Training Certificate

Skippers of yachts to which the Code applies should hold an approved Basic Sea Survival Training Course Certificate.

2.7 First Aid Certificate

2.7.1 Skippers or another member of the crew of yachts that operate in area Category 2 or 3 should hold a recognized Basic First Aid Certificate acceptable to the Administration. Such courses should have extra emphasis on the treatment of hypothermia and casualty evacuation.

2.7.2 Skippers of yachts operating in area Category 1 or 0 should hold a Medical First Aid Certificate unless another member of the crew holds a medical or nursing qualification of an equivalent or a higher standard. The person deemed to be 'In Charge' of medical care is to revalidate their certificate every five (5) years.

2.8 Radar Training

On any yacht that carries radar, the skipper and any crew member who is liable to use the radar are strongly recommended to undertake appropriate training in its use.

3. Hours of Work Provisions

3.1 Fatigue at sea is a serious safety issue and operators should ensure that all vessels certified under this code and commercially operated are sufficiently manned to avoid the need to work excessive hours. The skipper is responsible for ensuring, so far as reasonably practicable, that they and their crew members are properly rested when they begin work. It is strongly recommended that the following guidelines are followed for anyone on board:

Minimum hours of rest are ten (10) hours in any twenty four (24) hour period; and seventy seven (77) hours in any seven (7) day period.

3.2 In some instances following the guidelines will not be possible due to operational constraints. On these occasions, the additional hours to be work must agreed between the skipper and crew members and that the health and safety of all crew members is not compromised.

3.3 For watchkeeping yachts, the watch list schedule should be developed bearing in mind the Hours of Work guidelines.

4. Revalidation of Certificates and Licenses

All Yachtmaster Certificates should be revalidated every five (5) years by the Administration which issued the relevant Certificate.

5. Yachts on Bareboat / Demise Charter

The owner, operator or manager of a yacht offered for bareboat or demise charter should ensure that the skipper and crew of the yacht are provided with sufficient information about the yacht and its equipment to enable it to be navigated safely. The owner, operator or manager should be satisfied that the bareboat/demise charter skipper and crew are competent for the intended voyage. Details of hand-over procedures are given in Part C Section 9.

6. Yachts on Skippered Charter

Before the commencement of any voyage, the skipper should ensure that all persons on board are briefed on the stowage and use of personal safety equipment such as lifejackets, thermal protective aids and life buoys, and the procedures to be followed in cases of emergency.

7. Approved Engine Course

As referred to in the table for manning requirements, an Approved Engine Course (AEC) is a shore-based course of at least thirty hours duration that is approved or recognized by the Administration. A "Certificate of Attendance" must be given by the course organizers to persons completing the course.

8. Responsibility of the Owner, Operator or Manager for Safe Manning of the Yacht

It is the responsibility of the owner, operator or manager to ensure that the skipper and, where necessary, the crew of the yacht have, in addition to any qualifications required in Sub-Section 2.3 of Part C, Section 2 of this Code, recent and relevant experience with the type and size of yacht, the machinery on the yacht, and the type of operation in which the yacht is engaged. The owner, operator or manager should also ensure that there are sufficient additional crew on board having regard to the type and duration of voyage being undertaken.

9. Keeping a safe Navigational Watch

It is the responsibility of the skipper to ensure that there is, at all times, a person with adequate experience in charge of the navigational watch. In taking this decision the skipper should take into account all the factors affecting the safety of the yacht, including:

(a) The present and forecast state of the weather, visibility and sea;

(b) The proximity of navigational hazards;

(c) The density of traffic in the area.

10. Withdrawal of a Certificate of Competency

The Administration reserves the right to withdraw an Endorsement of a Certificate of Competency at any time if due cause is demonstrated.

Part C, Section 3 - Survey, Certification, Inspection and Maintenance

1. Requirements for Yachts to be Surveyed and Certificated

1.1 An existing yacht is required to be surveyed, documented and certificated by the date of registration.

1.2 The owner, operator or manager of a yacht to be operated under the Code, should:

(a) Choose an Authorised Surveyor; and

(b) Arrange with the Authorised Surveyor for a Compliance Survey to be performed and documented.

1.3 The Authorised Surveyor should decide the extent of the survey based on the type, age and history of the yacht.

2. Provisional Registration Arrangements for Existing Yachts

The owner, operator or manager will be required to:

2.1 Provide an Authorised Surveyor, the yacht's name, load line length and the maximum number of persons to be carried;

2.2 Submit sufficient stability information to allow the Code requirements for stability (Part B Section ll) to be assessed by the Authorised Surveyor;

2.3 Declare to the Authorised Surveyor:

(a) Within how many miles of a safe haven the yacht is to be operated, that the structural strength of the yacht is considered to be as required by the Code (Part B Section 4) and that it is in a good state of repair, that the yacht has previously been in commercial or private use in similar areas of operation and is considered to be satisfactory for such service;

(b) That when approved stability information is required (Part B Section ll), it will be carried on board at all times;

(c) That, at the time of registration, the life-saving appliances (Section 13), fire fighting appliances (Part B Section 15), navigation equipment (Part B Section 18), miscellaneous equipment (Part B Section 19), anchors and cables (Part B Section 20), safety harnesses (Part B Section 22), and medical stores (Part B Section 23) will be in accordance with the Code for the intended area of operation;

(d) That the yacht will be manned at all times in accordance with the Code (Part C Section 2) for the intended area and type of operation;

(e) That the yacht will be maintained as required by the Code and submitted for Compliance Survey prior to the date of registration.

2.4 On receipt and review of the yacht particulars, declarations and the required stability information, the Authorised Surveyor, when it is considered appropriate to do so, should acknowledge and accept receipt of the information by confirming the intention to have the yacht certificated under the Code, and acceptance of the stability information.

3. Issue of a Compliance Certificate under the Code

3.1 The owner, operator or manager should arrange with the Authorised Surveyor a Compliance Survey to be carried out. The arrangements, fittings, equipment and declarations provided on the yacht are to be documented on a Certificate of Survey or Statement of Compliance report. Upon satisfactory completion and documentation of the Compliance Survey and the owner, operator or manager declarations, a copy of the report with the results should be forwarded by the Authorised Surveyor to the Administration.

3.2 Before a Certificate of Compliance is issued for yachts operating in area Category 0 or 1, the owner, operator or manager should be in possession of an approved stability information booklet for the yacht.

3.3 For yachts operating in area Category 2 or 3, before a certificate is issued, the owner, operator or manager should provide the Authorised Surveyor with information necessary to confirm that the stability of the yacht meets the standard required by the Code for the permitted area of operation.

3.4 Upon satisfactory completion and verification that the arrangements, fittings, equipment and declarations documented are all in compliance with the Code and that the yacht and its machinery are in a sound and well maintained condition, the Authorized Surveyor will issue an Interim Certificate of Compliance which is valid for five (5) months.

3.5 Upon satisfactory review of the documented arrangements, fittings and equipment provided in compliance with the Code and the required declarations, as appropriate, of either the stability information booklet or required stability information, the Administration will issue the final full term Certificate of Compliance.

3.6 A certificate will be valid for not more than five (5) years from the date that the certificate is issued.

4. Compliance and Periodical Surveys

4.1 Compliance Survey for renewal of a Certificate of Compliance

4.1.1 The owner, operator or manager should arrange for a Compliance Survey to be carried out by an Authorized Surveyor. Upon satisfactory completion and verification that the arrangements, fittings, equipment and declarations documented are all in compliance with the Code and that the yacht and its machinery are in a sound and well maintained condition, the Authorized Surveyor will issue an Interim Certificate of Compliance which is valid for five (5) months.

4.1.2 Upon satisfactory review of the arrangements, fittings, equipment and declarations documented being in compliance with the Code, the Administration, will renew the yacht's Certificate of Compliance.

4.2 Examination requirements other than compliance or renewal

Table 1
Survey Regime Applicable to all Yachts under the Code

Area Category	Annual Survey to be carried out by Authorised Surveyor	Annual Survey to be carried out by owner, operator or manager	3 Year survey requirement
0	Yes, yacht in the water	No	Authorised Surveyor, yacht out of the water
1	Yes, yacht in the water	No	Authorised Surveyor, yacht out of the water
2	Yes, yacht in the water	No	Authorised Surveyor, yacht in the water
3	No	Yes	Authorised Surveyor, yacht in the water

4.2.1 Annual Surveys for Yachts Authorised to Operate in Category 0, 1 and 2

Annual surveys should not exceed intervals of 15 months. Upon satisfactory completion of the annual survey, the Authorised Surveyor should endorse the Certificate Compliance and report the results of the survey to the Administration.

4.2.2 Annual Self-Surveying Requirements for yachts authorized to operate in Category 3

4.2.2.1 The owner, operator or manager should enter details of a successful safety inspection on a Self-Assessment report form and submit the results of the inspection to the Administration.

4.2.2.2 The owner, operator or manager should not complete details on the Statement of Compliance report form if the safety inspection reveals that either the yacht, its machinery, fittings or equipment are not sound or they do not comply with those documented in the original or latest revision of the Self-Assessment report. The reasons for the owner, operator or manager not being able to enter certain details of the safety inspection on the report should be reported immediately to the Administration.

4.3 Three Year Intermediate Surveys

In addition to the Compliance Surveys and the annual surveys required to be undertaken. An inspection equivalent to the compliance survey will be carried out on behalf of the Administration, by an Authorized Surveyor at least once during the term of the Compliance Certificate in order that the interval between successive surveys by an Authorized Surveyor should not exceed three (3) years. The owner, operator or manager should arrange with the Administration for this survey to be carried out. Upon satisfactory completion of the survey, the Authorized Surveyor will report the results of the inspection to the Administration.

5. Appeal Against the Findings of a Survey

If an owner, operator or manager is dissatisfied with the findings of a survey and agreement cannot be reached with the Authorized Surveyor who carried out the inspection, the owner, operator or manager may appeal to the Administration to review the findings. It is permitted for the owner, operator or manager to include the opinions of a representative or professional adviser in support of the arguments against the findings of the survey.

6. Operation and Maintenance of the Yacht

6.1 The Administration may appoint an Authorised Surveyor to survey a certificated yacht at any time.

6.2 It is the responsibility of the owner, operator or manager to ensure that at all times a yacht is operated and maintained in accordance with the requirements of the Code, the arrangements, and any conditions stated on the yacht's Compliance Certificate. If, for any reason, the yacht does not continue to comply with any of these requirements, the owner, operator or manager should notify the Administration immediately.

6.3 If a yacht suffers a collision, grounding, fire or other event that causes major damage or injury, the owner, operator or manager should notify the Administration immediately.

6.4 The owner, operator or manager is hereby reminded of the statutory requirement to report accidents to the relevant authorities as well as the Administration.

6.5 The nature and extent of major repairs should be subject to the approval of the Administration.

6.6 Refer to Section 7.1 below regarding the validity and cancellation of certificates.

7. Other Conditions Applying to Certificates

7.1 Validity and cancellation of certificates

7.1.1 The continued validity of a Certificate of Compliance issued under the Code is dependent upon the yacht being maintained, equipped and operated in accordance with the documented arrangements and declarations contained in the original or latest revision of the survey report. Proposals to change any of the arrangements should therefore be agreed in writing with the Administration before a change is implemented. Copies of the written agreement detailing change(s) should be appended to the report, which is to be retained on board the yacht.

7.1.2 When the yacht is found to have not been maintained or equipped or operated in accordance with the arrangements documented in the survey report, the Compliance Certificate may be cancelled by the Administration.

7.1.3 When a yacht is sold, Compliance Certificate issued by the Administration is cancelled automatically and the owner, operator or manager should return the certificate to the Administration for formal cancellation and records.

7.1.4 When a yacht has had its Compliance Certificate cancelled, the Authorised Surveyor should report the circumstances to the Administration for action to be taken as deemed necessary.

Part C, Section 4 - Accident Investigation

The Administration is obliged to investigate accidents or incidents in accordance with the requirements of SOLAS I/Regulation 21 and MARPOL 73/78 article 8 of International Conventions. Apart from this legal requirement, our Administration investigates such occurrences as part of our policy to ensure effective control and accident prevention in the interests of safety at sea and the protection of the environment.

It is an offence for the vessel's master, skipper or owner not to inform the Administration of a reportable accident shortly after it occurs and to provide details so that an assessment of its severity can be made quickly. The Administration will appoint a suitable surveyor or inspector whenever an investigation is required. The Administration will then receive the surveyor's or the inspector's report and will take such measures or actions as it deems appropriate.

All serious casualties, in accordance with the IMO's definition thereof, should be reported to IMO by the Administration.

Part C, Section 5 - Guidelines for the Assessment of Variations to the Standards Applied by the Code

1. Section 3.3 recognizes that variations to the standards applied by this Code can be considered on the basis that the variations provide equivalent standards of safety by taking into account specific local conditions that are certain to exist.

2. Applications for the acceptance of alternatives must be supported by justifications and be formally made to the Administration.

3. Variations are expected to be either a direct alternative to a requirement or a reduced requirement based upon factors that compensate for the reduction.

4. Justifications made formally in support of an application for acceptance of a reduced requirement are to be arranged in priority order, according to the judgment of the applicant.

5. Although not an exhaustive list, factors that will be considered individually and combined by the Administration will include:

   (a) Area of operations significantly reduced;

   (b) A guaranteed control of yacht which restricts operations to sea and weather conditions such that there is a very low risk of an accident;

   (c) The certainty of readily available means of emergency rescue;

   (d) Operations wholly within sight of the local authority and means of emergency rescue;

   (e) Seasonal limitations, such as, between 1 June and 31 October or some lesser period;

   (f) Yachts operating in close proximity to one another and equipped to provide efficient safety back-up to each other in an emergency;

   (g) Provision or wearing of additional (special) individual personal survival equipment or clothing which will protect lives in an emergency;

   (h) Enhanced communications between the yacht(s) and constantly attended shore base with readily available emergency rescue craft at the base;

   (i) The nature of the sport or pleasure activity involving very low risk of participants accidentally entering the water or causing the yacht to capsize;

   (j) Very restricted operations to sea from a safe beach;

   (k) Inherent safety of the yacht by design, test and experience;

   (l) A high ratio of professional skipper and crew numbers to the number of other persons on board;

   (m) The number of safety craft provided to protect the yachts operating commercially for sport or pleasure;

   (n) Enhanced provisions for distress alert and rescue;

   (o) Means provided for “dry” rescue from a yacht in emergency situations.

Part C, Section 6 - Simplified Tonnage Measurement Method

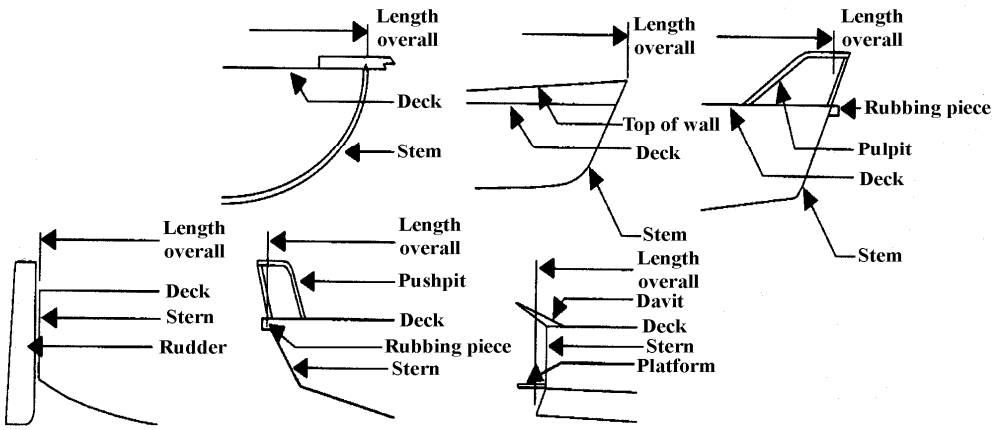
The following simplified method of measurement may be used, if necessary, for commercial yachts less than 24 metres in load line length and private yachts that do not have their tonnages calculated in accordance with the International Tonnage Convention, 1969:

1. Applicability

This simplified tonnage assignment criterion is applicable to monohull and multihull yachts of normal proportions and form.

2. Definitions (For the purpose of this simplified measurement method only)

2.1 Length (L) – Distance in metres measured along the main deck at the centreline of the yacht from the fore side of the hull to the aft side of the transom. Bowsprits, stern mounted diving platforms, and other appendages that do not contribute to the volume of the yacht are not to be included in this measurement.



2.2 Breadth (B) – Maximum width of the yacht, excluding rub rails and deck caps, measured in metres from the outside of the hull on one side to the outside of the hull on the other side of the yacht.

2.3 Depth (D) – Maximum depth of the yacht measured in metres vertically from the top of the deck at the side to the underside of the hull where it meets the keel or to the point where the projected line of the bottom intersects the yacht's centreline.

2.4 Volume (V) – The product of length, breadth, and depth.

3. Measurements

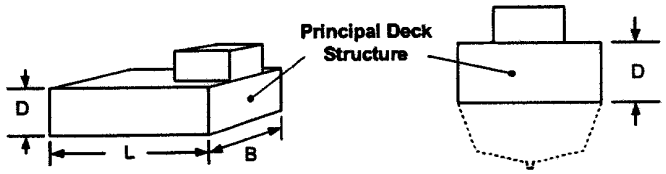
3.1 All lengths and depths must be measured in a vertical plane at centreline and breadths must be measured in a line at right angles to that plane. All dimensions must be expressed in metres.

3.2 For multihull yachts, each hull must be measured separately for overall length, breadth, and depth and the yacht as a whole must be measured.

4. Deck Structures

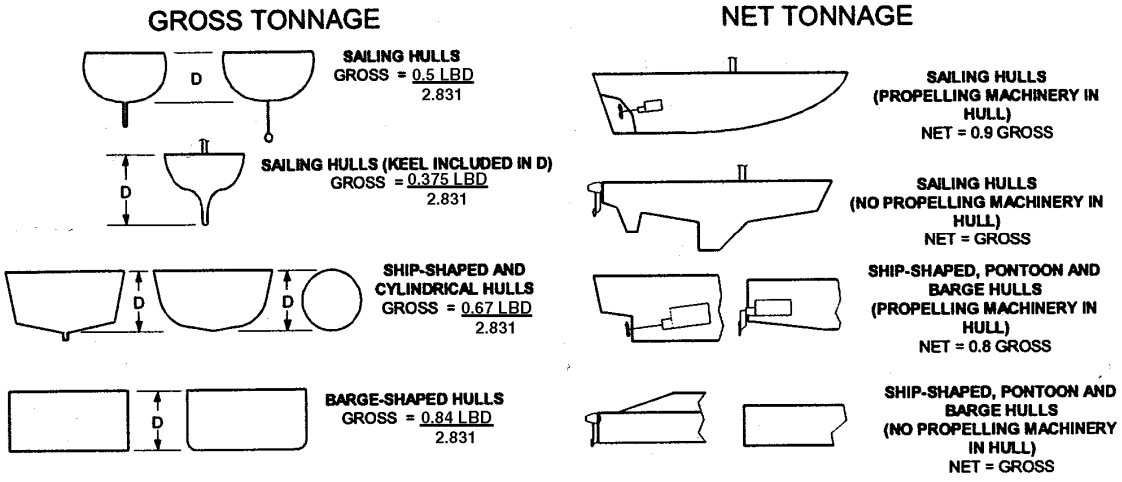
4.1 For most yachts, the formulas listed below account for the volumes of deck structures such as cabins and deckhouses. However, if deck structures are excessive in size, the gross tonnage is calculated by adding the principal deck structure tonnage to the gross tonnage(s) of the yacht's hull(s).

4.2 Deck structures are considered excessive in size if the tonnage of the principal deck structure calculated using the formula below is equal to or exceeds the gross tonnage(s) of the yacht's hull(s).



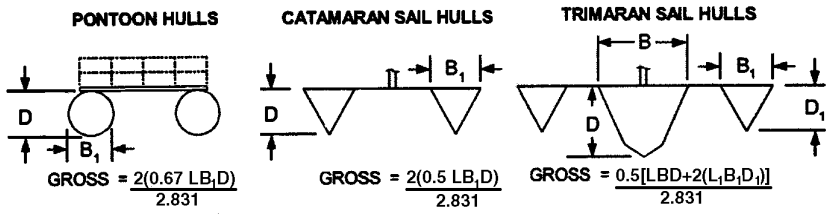
Principal Deck Structure Tonnage = L x B x D / 2.831

5. Calculations



6. Multihull Yachts

Gross Tonnage of a multihull yacht is the sum of the gross tonnages of each hull as calculated using the formulas listed above. For example:



where L is the length of the centre hull and L_1 is the length of the outside hulls.

Part C, Section 7 - Open Flame Gas Installations

1. General Information

1.1 Possible dangers arising from the use of open flame appliances in the marine environment include fire and, in addition, with respect to liquid petroleum gas (LPG), explosion and asphyxiation due to leakage of gas from the installation.

1.2 Consequently, the siting of open flame appliances, gas-consuming appliances and storage containers and the provision of adequate ventilation to spaces containing them, is most important.

1.3 Open flame appliances such as barbeques should not be sited close to flammable parts of the structure or fittings, and should be supervised at all times. They should be structurally suitable for the marine environment and secured to prevent movement in a seaway.

1.4 It is dangerous to sleep in spaces where gas-consuming open flame appliances are left burning, because of the risk of carbon monoxide poisoning.

1.5 LPG, which is heavier than air, when released, may travel some distance while seeking the lowest part of a space. Therefore, it is possible for gas to accumulate in relatively inaccessible areas, such as bilges, and diffuse to form an explosive mixture with air, as in the case of petroleum vapor.

1.6 A frequent cause of accidents involving LPG installations is the use of unsuitable fittings and improvised “temporary” repairs.

2. Stowage of Gas Containers

2.1 Gas containers should be stowed on the open deck or in an enclosure opening only to the deck or overboard and otherwise gastight, so that any gas, which may leak from the containers, can disperse overboard.

2.2 The vent and drain should not be less than 19 mm in diameter, run to the outside of the craft and terminate 75 mm or more above the ‘at rest’ waterline. The drain and locker ventilation should be 500 mm or more from any opening to the vessels interior.

2.3 The cylinders and associated fittings should be positively secured against movement and protected from damage in any foreseeable event.

2.4 Any electrical equipment located in cylinder lockers should be certified for use in the potential explosive atmosphere.

2.5 In multiple container installations a non-return valve should be placed in the supply line near to the stop valve on each container. If a changeover device is used, it should be provided with non-return valves to isolate any depleted container.

2.6 Where more than one (1) container can supply a system, the system should not be used with a container removed.

2.7 Containers not in use or not being fitted into an installation should have the protecting cap in place over the container valve.

3. Fittings and Pipework

3.1 Solid drawn copper alloy or stainless steel tube with appropriate compression or screwed fittings is recommended for general use for pipework in LPG installations.

3.2 Aluminum or steel tubing, or any material having a low melting point, such as rubber or plastic, should not be used, except as permitted by paragraph 3.3.

3.3 Lengths of flexible piping (if required for flexible connections) should be kept as short as possible and be protected from inadvertent damage. Also, the piping should conform to an appropriate standard.
Proposals for a more extensive use of flexible piping (which conforms to an internationally recognized standard for its application) should be submitted to the Administration via its Authorised Surveyor for approval on an individual basis.

4. Open Flame Heaters and Gas Refrigerators

4.1 When such appliances are installed, they should be well secured to avoid movement and, preferably, be of a type where the gas flames are isolated in a totally enclosed shield where the air supply and combustion gas outlets are piped to open air.

4.2 In refrigerators, where the burners are fitted with flame arrester gauze, shielding of the flame may be an optional feature.

4.3 Refrigerators should be fitted with a flame failure device.

4.4 Flue-less heaters should be selected only if fitted with atmosphere-sensitive cut-off devices to shut off the gas supply at a carbon dioxide concentration of not more than 1.5% by volume.

4.5 Heaters of a catalytic type should not be used.

5. Flame Failure Devices

All gas consuming devices should be fitted, where practicable, with an automatic gas shut-off device that operates in the event of flame failure.

6. Ventilation

The ventilation requirements of a space containing an LPG appliance should be assessed against an appropriate standard and should take into account gas burning equipment and persons occupying that space.

7. Gas Detection

7.1 Suitable means for detecting the leakage of gas should be provided in any compartment containing a gas-consuming appliance, or in any adjoining space of a compartment into which the gas (more dense than air) may seep.

7.2 Gas detectors should be securely fixed in the lower part of the compartment in the vicinity of the gas-consuming appliance and in other space(s) into which gas may seep.

7.3 Any gas detector should, preferably, be of a type that will be actuated promptly, and automatically by the presence of a gas concentration in air of not greater than 0.5% (representing approximately 25% of the lower explosive limit) and should incorporate an audible and a visible alarm.

7.4 Where electrical detection equipment is fitted, it should be certified as being flameproof or intrinsically safe for the gas being used.

7.5 In all cases, the arrangements should be such that the detection system can be tested frequently while the yacht is in service.

8. Emergency Action

8.1 A suitable notice, detailing the action to be taken when an alarm is given by the gas detection system, should be displayed prominently in the yacht.

8.2 The information given should include the following:

(a) The need to be ever alert for gas leakage; and

(b) When leakage is detected or suspected, all gas-consuming appliances should be shut off at the main supply from the containers, and NO SMOKING should be permitted until it is safe to do so.

(c) **Naked lights should never be used as a means of locating gas leaks.**

Part C, Section 8 - Hand over Procedure for Owners, Operators or Managers when Bareboat/Demise Chartering a Commercial Yacht

1. Familiarisation

The owner, operator or manager or appointed representative with intimate knowledge of the yacht should be present at the hand-over of the yacht to the chartering skipper and crew in order to complete the following familiarization procedure:

1.1 Demonstrate the stowage of all gear and the method of use of all lifesaving and firefighting appliances on board the yacht;

1.2 Locate and explain the method of operation of all sea cocks and bilge pumps;

1.3 Demonstrate use of all mechanical, electrical and electronic equipment to ensure familiarization;

1.4 Provide details of routine maintenance required for any equipment;

1.5 Demonstrate checks to be carried out on the engine prior to starting, while running and after stopping;

1.6 Demonstrate the methods of setting, sheeting and reefing each sail.

2. Documentation

2.1 The owner, operator or manager or appointed representative, as detailed in Section 1.0 above, should ensure that the Yacht's File is presented to and reviewed with the chartering skipper. The Yacht's File should contain at least the following:

(a) Certificate of Registry

(b) Copies of the insurance policy

(c) Required certificates and licenses

(d) Details of permitted operating area (Category)

(e) Training Manuals and maintenance instructions

(f) Diagrams for electrical wiring and piping/plumbing

(g) Equipment inventory

(h) Plan(s) showing the stowage position of all the movable equipment necessary for the safe operation of the yacht

(i) A list of names and telephone numbers (both during and after office hours) of persons who may be contacted if the chartering skipper or the yacht is in need of assistance.

2.2 The chartering skipper should sign an acceptance note after completion of the hand-over procedure with regard to inventory, condition of items demonstrated, and the amounts of fuel and other consumable items on board which might be chargeable.

3. Return Procedures

3.1 At the end of the bareboat/demise charter the owner, operator or manager or appointed representative together with the chartering skipper should be present and the following procedure conducted:

(a) Inspect the yacht;

(b) Check the yacht's inventory;

(c) List any damage, defect, losses, or need for repair.

3.2 The above details should be noted on a return report form signed by the owner, operator or manager or appointed representative and the chartering skipper.

Part C, Section 9 - Guidelines for Sporting and Leisure Activities

In view of the increasing number and nature of the sporting and leisure activities being conducted either on yachts or utilizing yachts as their base, particularly in the case of super and large yachts in commercial use, we perceive that there is a need to issue some guidelines on this topic.

1. Responsibility

The owner(s), operator(s), manager(s) and the Master of each yacht should ensure that all such activities carried out onboard a yacht or utilizing the yacht as a base are conducted in a safe manner bearing in mind any certification requirements and that they are supervised at all times by suitably qualified personnel. Furthermore, they should be in full compliance with the laws, regulations and guidelines applicable in the area of the yacht's operation as well as any applicable sections of this Code and referenced documents.

2. Safety

2.1 Attention should be given to the U.K.'s Code for Safe Working Practices for Merchant Seamen, as amended, and in particular to: Chapter 1 Risk Assessment; Chapter 5 Safety Signs; Chapter 7 Work Equipment; Chapter 9 Fire Precautions; Chapter 19 Manual Handling; Chapter 21 Lifting plant.

2.2 The conduct of such activities as well as the maintenance, storage, securing etc of related equipment should be incorporated into the yacht's safety management system referred to in Part B 28 of this Code.

2.3 Drug and Alcohol abuse

2.3.1 According to the American Red Cross, more than 50% of drownings result from boating incidents involving alcohol. The U.S. Coast Guard believes that alcohol involvement in recreational boating accidents is under-reported and remains a significant factor in recreational boating accidents and deaths. Drug and alcohol abuse directly affect the fitness and ability of a seafarer to perform watchkeeping duties in impairing judgement, balance and coordination. Seafarers found to be under the influence of drugs or alcohol should not be permitted to perform watchkeeping or other duties until they are no longer impaired in their ability to perform those duties.

2.3.2 As guidance, the consumption of alcohol within four hours prior to serving as member of a watch or being on duty should be prohibited. Similarly, the consumption of alcohol by those participating in yacht-based sporting activities, should be discouraged. Typically, the maximum blood alcohol level (BAC) during work or when engaged in sport should be no more 0.08%.

2.4 Barbecues

These are considered potentially hazardous and their use is discouraged. However, should you decide to use one, refer to Part C Section 7 "Open Flame Installations."

3. Specific Guidelines for particular Activities

The following activities have been identified as being prevalent on yachts:

- Scuba diving and snorkeling
- Sportfishing
- Jet skiing
- Water skiing
- Para-sailing

Consequently, some specific guidelines have been developed for those owners, operators or managers who will provide such activities on or from their yachts. These guidelines are intended as initial guides and do not obviate the need to consult manufacturers equipment and organizations/associations specializing in these activities. Guidelines for Sporting and Leisure Activities are shown on http://www.immarbe.com/yachts/guide_sporting_leisure.html.

4. Insurance

The requirements for Yacht Registration referred to in Part C, Section 1 includes important provisions for insurance, both in respect of hull and machinery of the yacht itself and any other equipment carried thereon e.g. jet skis as well as third party liability insurance, including cover for all persons who are part of the yacht's complement onboard, and in respect of any sporting activities in which any persons onboard may engage.

ANNEXES

Executive Summary

Belize - "the friendly flag of quality"
The International Merchant Marine Registry of Belize (IMMARBE)

- Belize is a parliamentary democracy and enjoys political stability. It was granted independence from the U.K. in 1981 and is a member of the Commonwealth of Nations.
- IMMARBE, an Open Registry, commenced operations in 1991. Its Head Office is in Belize City. It has a network of 32 Designated Offices worldwide. These offices are empowered to process applications for registration and to issue the relevant documentation only upon receipt of authorization from Head Office.
- IMMARBE's senior management and staff are located at its Head Office in Belize City. They have a wide range of expertise, covering all aspects of Flag State responsibilities. They are supplemented by the staff in Designated Offices including some 182 Flag State surveyors worldwide.
- IMMARBE offers competitive tonnage taxes, fees and incentives. All applications for ship registration are carefully screened. Yachts of 7501 GT and above must, inter alia, be classed by a member of IACS and have Third Party Liability Insurance Cover e.g. P&I Club. Other stringent criteria apply to yachts of 7500 GT and below. Yachts are required to comply with the relevant IMMARBE Code of Standards applicable to their size.
- Belize is a member of the UN, IMO, ILO and FAO and is a signatory to all the main UN, IMO, ILO and FAO Maritime Conventions/Agreements. It is included on the IMO White List.
- Belize has the largest number of memberships in Regional Fisheries Management Organizations (RFMOs) of any Open Registry - ICCAT, IOTC, IATTC, WCPFC, NEAFC, CRFM, OSPESCA, COPACO. Its high seas fishing vessels as well as its reefer vessels which are engaged in the carriage of fish enjoy a comprehensive coverage (authorization/licensing) in all the oceans/seas within the aforementioned RFMO Convention areas. Also, its High Seas fishing vessels benefit from valuable quotas and catch limits allocated to them in respect of the species which are the subject of the management and conservation measures of the aforementioned RFMOs.
- Belize has a well established legal system and mortgage recording service. Its laws are derived from English Common Law supplemented by local legislation. The Court system is also similar to that in England and contract and commercial legislation is based on the English law model. Belize's maritime legislation which deals with all matters relating to the registration of ships at IMMARBE and subsequent thereto is shown on www.belizelaw.org. A list showing the relevant maritime legislation and the regulations made thereunder is to be found on IMMARBE's website www.immarbe.com.

- IMMARBE has attained ISO 9001-2000 Certification by ANSI-ASQ National Accreditation Board which is the U.S. accreditation body for management systems. On 7th August 2007, Belize sent formal notification to the IMO of its decision to volunteer for the Voluntary IMO Member State Audit Scheme. This audit is expected to take place during 2009.
- In 2006, IMMARBE qualified for the U.S. Coast Guard's Quality Shipping for the 21st Century (QUALSHIP 21) Program. In 2007, it requalified for this prestigious designation. The three-year detention percentage for Belize registered vessels calling at U.S. ports is 0.00%. It is one of only 13 Flag States out of 166 Flag States holding this qualification in 2007. Its combined overall detention rates in all MOUs on Port State Control have improved considerably since 2001, down from 26.18% to 11.11% in 2007.
- Since 2001, IMMARBE's statistics for serious and very serious casualties have continued to improve - down from 1.12% of our total fleet to 0.60% in 2007. Furthermore, there have been no oil pollution incidents resulting from any such casualties in the last 6 years.
- IMMARBE is continuing in its mission by "striving for excellence in ship registration so as to attain international acclaim as a leading quality Open Registry."

  For further details on all topics relating to IMMARBE, kindly refer to our website www.immarbe.com

Belize's Maritime Legislation relating to registration at IMMARBE

Briefly, by way of background:

- Belize is a signatory to all the main UN, IMO, ILO Maritime Conventions as well as those relating to fishing - for details refer to www.immarbe.com.
- The laws of Belize are derived from English Common Law supplemented by local legislation. The Court system is also similar to that in England and contract and commercial law is based on the English law model. For details of Belize's laws, refer to www.belizelaw.org.
- Belize's national legislation which deals with all matters relating to the registration of ships at IMMARBE and subsequent thereto is shown on www.belizelaw.org and consists of the following:
  - Registration of Merchant Ships Act, 1989, as amended by Act No. 5 of 1996 (Chapter 236, Revised Edition 2000)
  - Registration of Merchant Ships (Miscellaneous Provisions of 1991) (Chapter 236, Subsidiary Laws, Revised Edition 2003)
  - Registration of Merchant Ships (Vessels under 500 GT in service outside the territorial waters of Belize, 1991) (Chapter 236, Subsidiary Laws, Revised Edition 2003)
  - Registration of Merchant Ships (Pleasure Vessels, 1991) (Chapter 236, Subsidiary Laws, Revised Edition 2003) as supplemented by the following which appear on www.immarbe.com:
    - IMMARBE's Code of Standards for Yachts of 24 m in Length or above and 500 GT or more (The Super Yacht Code)
    - IMMARBE's Code of Standards for Yachts of 24 m or above and less than 500 GT (The Large Yacht Code)
    - IMMARBE's Code of Standards for Yachts of less than 24 m (The Small Yacht Code
  - Registration of Merchant Ships (Fishing Vessels of 24 meters in length and above) Safety Regulations, 1995 (Chapter 236, Subsidiary Laws, Revised Edition 2003)
  - Registration of Merchant Ships (Cargo Vessels operating in the Caribbean Trading Area) Safety Regulations, 1997 (Chapter 236, Subsidiary Laws, Revised Edition 2003)
  - Registration of Merchant Ships (Disciplinary Regulations, 1999) (Chapter 236, Subsidiary Laws, Revised Edition 2003)
  - Registration of Merchant Ships (Safe Manning, Hours of Work and Watchkeeping) Regulations, 1999 (Chapter 236, Subsidiary Laws, Revised Edition 2003)
  - The High Seas Fishing Act, 2003 (Chapter 210:01)
  - Registration of Merchant Ships (Ship Security) Regulations 2004 (S.I. 90 of 2004)

International Conventions Ratified by Belize

As a member of the International Maritime Organization (IMO) and the International Labour Organization, Belize has ratified the following Conventions which are relevant to shipping:

IMO Conventions

- Load Lines, 1966 (LL) and amendments including Protocol of 1988 and its Annexes A and B
- Tonnage Measurement of Ships 1969
- Safety of Life at Sea, 1974 (SOLAS), as amended including the Protocol of 1988 and its Annex
- Standards of Training Certification and Watchkeeping for Seafarers, 1978/1995 (STCW) as amended
- Prevention of Pollution by Ships, 1973 (MARPOL) as modified by the Protocol of 1978; Annex III; Annex IV; Annex V; Protocol of 1997 incorporating Annex VI
- International Regulations for Preventing Collisions at Sea, 1972 (COLREGS)
- Civil Liability for Oil Pollution Damage, 1969 (CLC); Protocol 1976; Protocol 1992
- Establishment of an International Fund for Compensation for Oil Pollution Damage 1971 (FUND); Protocol of 1976 and Protocol 1992
- Limitation of Liability for Maritime Claims 1976 (LLMC)
- Maritime Search and Rescue 1979

ILO Conventions

- No. 16 Medical Examination of Young Persons 1921
- No. 22 Articles of Agreement 1926 (refer to Merchant Shipping Notice MSN-0021)
- No. 58 Minimum Age (Revised) 1936
- No. 87 Freedom of Association and Protection of Right to Organize, 1948
- No 108 Seafarers' Identity Documents 1958
- No 111 Discrimination (Employment and Occupation), 1958
- No 138 Minimum Age 1973
- No. 23 Repatriation of Seamen, Convention, 1926
- No. 55 Shipowners' Liability (Sick and Injured Seamen) Convention, 1936
- No. 92 Accommodation of Crews Convention (Revised), 1949
- No. 133 Accommodation of Crews (Supplementary Provisions) Convention, 1970 (refer to Merchant Shipping Notice MSN - 0017)
- No. 134 Prevention of Accidents (Seafarers) Convention, 1970
- No. 147 Merchant Shipping (Minimum Standards) Convention, 1976 and Protocol to the Merchant Shipping (Minimum Standards) Convention 1976

List of Contributors who assisted in the development of IMMARBE'S Code of Standards for Yachts of less than 24m, in commercial or private use

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Relevant Conventions

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Hyperlinks have been used to assist users to locate relevant parts of related legislation. Due to the manner in which the legislation is produced, users may have move down the page a short way to the specific regulation. The full text of the original documents should be studied before making any decision based on those regulations.

SOLAS I/Regulation 21 - Casualties

SOLAS III/Regulation 35 - Training Manual and On-Board Training Aids

SOLAS III/Regulation 36 - Instructions for On-Board Maintenance

MARPOL 73/78 Article 8 - Reports on incidents involving harmful substances