

# OFFSHORE SPECIAL REGULATIONS

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## OFFSHORE SPECIAL REGULATIONS 2002-2003

Governing offshore racing

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The Special Regulations sub-committee was created in 1967 by the newly-formed Offshore Rule Co-ordinating Committee, later the ORC (Offshore Racing Council). As the horizons of offshore racing extended into round-the-world and multihull activities, so too did the scope of Special Regulations which now cover racing in five categories. A training section was introduced in 1999. Special Regulations are continuously reviewed and re-published biennially.

Interpretations, amendments, and also extract files for particular categories and boat types, are available on the web site below. Assistance from Bob McPherson in computer programming is gratefully acknowledged.

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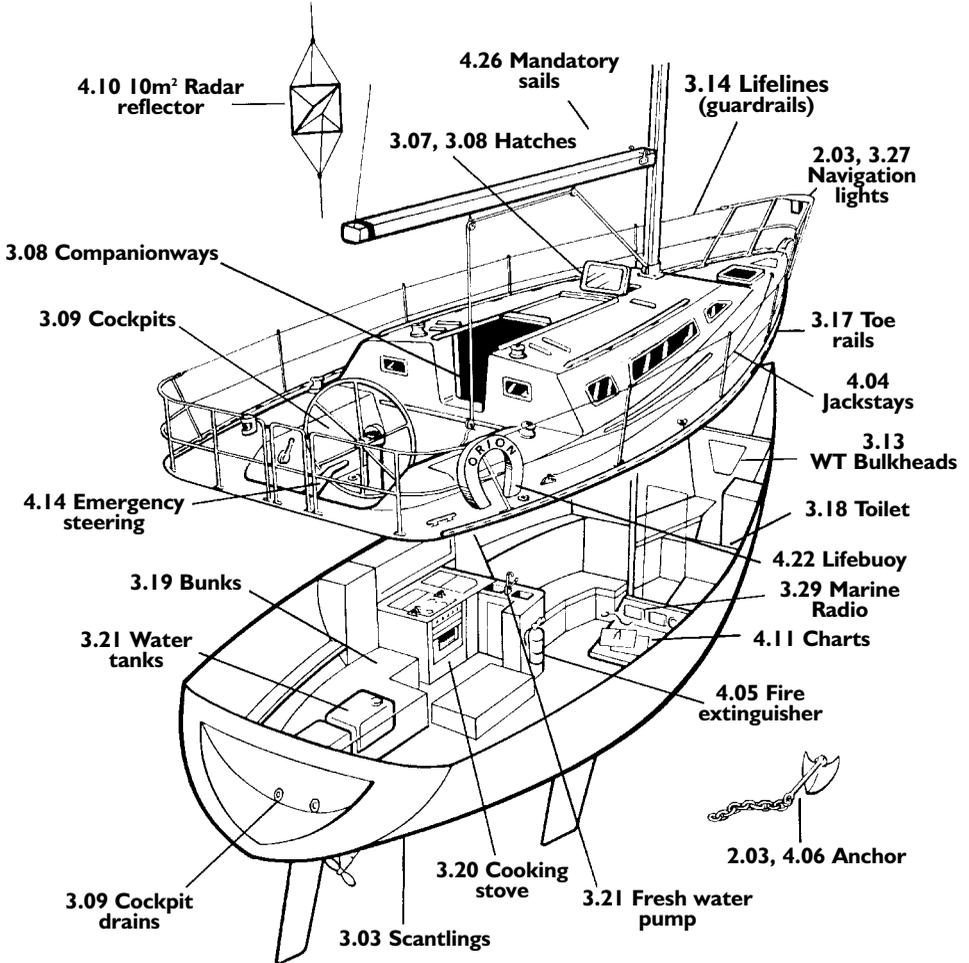
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# SPECIAL REGULATIONS DIAGRAMMATIC GUIDE

(see also alphabetical index)



# OFFSHORE SPECIAL REGULATIONS

## OFFSHORE SPECIAL REGULATIONS JANUARY 2002 - DECEMBER 2003

v 3.14

### Notes to the 2002 edition

A side bar indicates significant changes in 2002.

Official interpretations and amendments shall take precedence over these Special Regulations and will be indexed, numbered, dated and displayed on the ISAF web site.

Extract files are available at the web site for individual categories and boat types (monohulls and multihulls).

**Mo means Monohull, Mu means Multihull**

**\*\* means the item applies to all types of yacht in all categories**

The use of the masculine gender shall be taken to mean either gender

Guidance notes and recommendations are in italics

## SECTION I – FUNDAMENTAL AND DEFINITIONS

### 1.01 Purpose and use

1.01.1 It is the purpose of these Special Regulations to establish uniform minimum equipment, accommodation and training standards for monohull and multihull yachts racing offshore. A Proa is excluded from these regulations.

1.01.2 These Special Regulations do not replace, but rather supplement, the requirements of governmental authority, the Racing Rules of Sailing and the rules of Class Associations and Rating Systems. The attention of owners is called to restrictions in the Rules on the location and movement of equipment.

1.01.3 These Special Regulations, adopted internationally, are strongly recommended for use by all organisers of offshore races. Race Committees may select the category deemed most suitable for the type of race to be sailed.

### 1.02 Owner's responsibility

1.02.1 The Safety of a yacht and her crew is the sole and inescapable responsibility of the owner, or owner's representative who must do his best to ensure that the yacht is fully found, thoroughly seaworthy and manned by an experienced crew who have undergone appropriate training and are physically fit to face bad weather. He must be satisfied as to the soundness of hull, spars, rigging, sails and all gear. He must ensure that all safety equipment is properly maintained (2.03.1) and stowed and that the crew know where it is kept and how it is to be used.

1.02.2 Neither the establishment of these Special Regulations, their use by race organisers, nor the inspection of a yacht under these Special Regulations in any way limits or reduces the complete and unlimited responsibility of the owner or owner's representative.

1.02.3 Decision to race -The responsibility for a yacht's decision to participate in a race or to continue racing is hers alone - RRS Fundamental Rule 4.

1.03 Definitions, abbreviations, word usage

1.03.1 Definitions of Terms used in this document

### TABLE I

Age Date	Month/year of first launch
CEN	Comité Européen de Normalisation
Coaming	The term "coaming" includes the transverse after limit of the cockpit over which water would run in the event that when the yacht is floating level the cockpit is flooded or filled to overflowing.
DSC	Digital Selective Calling
EN	European Norm
EPIRB	Electronic Position-Indicating Radio Beacon
FA station	The transverse station at which the upper corner of the transom meets the sheerline.
FICO	Forum International de la Course Océanique
Foul-weather Suit	A foul weather suit is clothing designed to keep the wearer dry and may be either a jacket and trousers worn together, or a single garment comprising jacket and trousers.
GMDSS	Global Maritime Distress & Safety System
GPIRB	EPIRB, with integral GPS position-fixing
Hatch	The term hatch includes the entire hatch assembly and also the lid or cover as part of that assembly (the lid or cover itself may be described as a hatch).
IMO	International Maritime Organisation
ISAF	International Sailing Federation.
ISO	International Standard or International Organization for Standardization.
Lifeline	Wire line rigged as a guardrail around the deck
LOA	Length overall not including pulpits, bowsprits, boomkins etc.
LWL	(Length of) loaded waterline
Monohull	Yacht in which the hull depth in any section does not decrease towards the centre-line.
Permanently installed	Means the item is effectively built-in by eg bolting, welding, glassing etc. and may not be removed for or during racing.
PLB	Personal Locator Beacon
Proa	Asymmetric catamaran

### Category

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		Category
RRS	Racing Rules of Sailing	
SAR	Search and Rescue	
Series date	Month/year of first launch of the first yacht of the production series	
SOLAS	Safety of Life at Sea Convention	
Safety line	A tether used to connect a safety harness to a strong point	
Securely fastened	Held strongly in place by a method (eg rope lashings, wing-nuts) which will safely retain the fastened object in severe conditions including a 180 degree capsize and allows for the item to be removed and replaced during racing	
Static safety line	A safety line (usually shorter than a safety line carried with a harness) securely fastened at a work-station	
1.03.2	The words "shall" and "must" are mandatory, and "should" and "may" are permissive.	**
1.03.3	The word "yacht" shall be taken as fully interchangeable with the word "boat".	**
<b>SECTION 2 - APPLICATION &amp; GENERAL REQUIREMENTS</b>		
<b>2.01</b>	<b>Categories of offshore events</b>	
	<i>In many types of race, ranging from trans-oceanic sailed under adverse conditions to short-course day races sailed in protected waters, five categories are established, to provide for differences in the minimum standards of safety and accommodation required for such varying circumstances:</i>	**
<b>2.01.1</b>	<b>Category 0</b>	
	Trans-oceanic races, including races which pass through areas in which air or sea temperatures are likely to be less than 5 degrees Celsius other than temporarily, where yachts must be completely self-sufficient for very extended periods of time, capable of withstanding heavy storms and prepared to meet serious emergencies without the expectation of outside assistance.	MoMu,0
<b>2.01.2</b>	<b>Category 1</b>	
	Races of long distance and well offshore, where yachts must be completely self-sufficient for extended periods of time, capable of withstanding heavy storms and prepared to meet serious emergencies without the expectation of outside assistance.	MoMu,1
<b>2.01.3</b>	<b>Category 2</b>	
	Races of extended duration along or not far removed from shorelines or in large unprotected bays or lakes, where a high degree of self-sufficiency is required of the yachts.	MoMu,2
<b>2.01.4</b>	<b>Category 3</b>	
	Races across open water, most of which is relatively protected or close to shorelines, including races for small yachts.	MoMu,3
<b>2.01.5</b>	<b>Category 4</b>	
	Short races, close to shore in relatively warm or protected waters normally held in daylight.	MoMu,4
<b>2.02</b>	<b>Inspection</b>	
	A yacht may be inspected at any time. If she does not comply with these Special Regulations her entry may be rejected, or she will be liable to disqualification or such other penalty as may be prescribed by the National Authority or the Race Organisers.	**
<b>2.03</b>	<b>General requirements</b>	
<b>2.03.1</b>	All equipment required by Special Regulations shall:-	
	a) function properly	**
	b) be regularly checked, cleaned and serviced	**
	c) when not in use be stowed in conditions in which deterioration is minimised	**
	d) be readily accessible	**
	e) be of a type, size and capacity suitable and adequate for the intended use and size of the yacht.	**
<b>2.03.2</b>	Heavy items:	
	a) ballast, ballast tanks and associated equipment shall be permanently installed	**
	b) heavy movable items including e.g., batteries, stoves, gas bottles, tanks, toolboxes and anchors (4.06) shall be securely fastened	**
	c) heavy items for which fixing is not specified in Special Regulations shall be permanently installed or securely fastened, as appropriate	**
<b>2.03.3</b>	When to show navigation lights	
	a) navigation lights (3.27) shall be shown as required by the International Regulations for Preventing Collision at Sea, (Part C and Technical Annex 1). Yachts shall exhibit sidelights and a sternlight at the times required under IRCAS for navigation lights to be shown.	**
<b>SECTION 3 - STRUCTURAL FEATURES, STABILITY, FIXED EQUIPMENT</b>		
<b>3.01</b>	<b>Strength of build, ballast and rig</b>	
	Yachts shall be strongly built, watertight and, particularly with regard to hulls, decks and cabin trunks capable of withstanding solid water and knockdowns. They must be properly rigged and ballasted, be fully seaworthy and must meet the standards set forth herein. Shrouds shall never be disconnected.	**
<b>3.02</b>	<b>Watertight integrity of a hull</b>	
<b>3.02.1</b>	A hull, including, deck, coach roof, windows, hatches and all other parts, shall form an integral, essentially watertight unit and any openings in it shall be capable of being immediately secured to maintain this integrity.	**
<b>3.02.2</b>	Centreboard and daggerboard trunks and the like shall not open into the interior of a hull except via a watertight	**

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inspection/maintenance hatch of which the opening shall be entirely above the waterline of the yacht floating level in normal trim.

3.03 Hull construction standards (scantlings)

TABLE 2

LOA	earliest of age or series date	race category	3.03.1 applies?
all lengths of yacht	before 1/86	**	no
all lengths of yacht	1/86 and after	MoMu0,1	yes
12m (39.4 feet) and over	1/87 and after	MoMu2	yes
under 12m (39.4 feet)	1/88 and after	MoMu2	yes

3.03.1 A yacht selected by Table 2 shall have been designed and built in accordance with either:  
 a) the EC Recreational Craft Directive for Category A (having obtained the CE mark), or  
 b) the ABS Guide for Building and Classing Offshore Yachts in which case the yacht shall have on board either a certificate of plan approval issued by ABS, or written statements signed by the designer and builder which confirm that they have designed and built the yacht in accordance with the ABS Guide.

3.03.2 Any significant repairs or modifications to the hull, deck, coachroof, keel or appendages, on a yacht defined by 3.03.1 shall be certified by one of the methods above and an appropriate written statement or statements shall be on board.

**3.04 Stability - monohulls**

3.04.1 Either with, or without, reasonable intervention from the crew a yacht shall be capable of self-righting from an inverted position. Self-righting shall be achievable whether or not the rig is intact.

3.04.2 A yacht shall be designed and built to resist capsizes.

3.04.3 A National Authority or race organiser should require compliance with a minimum stability or stability/buoyancy index. Attention is drawn to the stability index in IMS Regulation 201 and screening indices published by various national authorities.

3.04.4 ISO 12217-2 when published as an international standard (not a draft) is expected to be capable of being used as a guide to general suitability for competition in Special Regulations race categories as follows:

TABLE 3

ISO Category	A	B	C
SR Category	I	2-3	4

*Use of a screening index does not guarantee total safety or total freedom of risk from capsizes or sinking.*

**3.05 Stability and flotation - multihulls (see 3.13)**

Attention is drawn to ISO 12217-7.

3.05.1 Adequate watertight bulkheads and compartments (which may include permanently installed flotation material) in each hull shall be provided to ensure that a multihull is effectively unsinkable and capable of floating in a stable position with at least half the length of one hull flooded.

3.05.2 Multihulls first launched on or after 1/99 shall in every hull without accommodation be divided at intervals of not more than 4m (13ft 3") by one or more transverse watertight bulkheads

**3.06 Exits - monohulls**

TABLE 4

LOA	earliest of age or series date	detail
8.5 m (28 ft) and over	1/95 and after	Yachts shall have two exits. One exit shall be located forward of the foremost mast except where structural features prevent its installation.

**3.07 Exits - multihulls**

Each hull which contains accommodation shall have at least two exits

3.07.1 In multihulls of 12m (39.4ft) LOA and greater in Mu2,3,4 each hull which contains accommodation shall have:-

- a) an escape hatch for access to and from the hull in the event of an inversion
- b) The recommended minimum clearance diameter through a multihull escape hatch is 450mm or when the escape hatch is not circular, sufficient clearance is recommended to allow a crew member to pass through fully clothed
- c) In a multihull first launched on or after 1/03 each escape hatch shall comply with 3.07.2 (b)
- d) When the multihull is inverted each escape hatch shall be above the waterline
- e) In a multihull first launched on or after 1/01 each escape hatch shall be at or near the midships station
- f) In a catamaran first launched on or after 1/03 each escape hatch shall be on the side of a hull nearest the centreline of the yacht

**Category**

MoMu0,1,2

MoMu0,1,2

MoMu0,1,2

Mo0

Mo0,1,2,3,4

Mo0,1,2,3,4

Mo1,2,3,4

Mo,1,2,3,4

Mo0,1,2,3,4

Mu0,1,2,3,4

Mu0,1,2,3,4

Mo0,1,2,3,4

Mu0,1,2,3,4

Mu0,1,2,3,4

Mu0,1,2,3,4

Mu0,1,2,3,4

Mu0,1,2,3,4

Mu0,1,2,3,4

Mu0,1,2,3,4

Mu0,1,2,3,4

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- |             |  |                         |
|-------------|--|-------------------------|
|             | g) A catamaran first launched on or after 1/03 with a central nacelle shall have on the underside of the yacht around the central nacelle, handholds of sufficient capacity to enable all persons on board to hold and/or clip on securely                               | Category<br>Mu0,1,2,3,4 |
|             | h) <i>It is recommended that in a catamaran with a central nacelle, each hull should have an emergency refuge, accessible via a special hatch in the side of the hull nearest the central nacelle, which hatch may be opened and closed from the inside and outside.</i> | Mu0,1,2,3,4             |
|             | i) A trimaran of 12m (39.4ft) LOA and greater first launched on or after 1/03 shall have at least two escape hatches.  | Mu0,1,2,3,4             |
|             | j) A trimaran shall have on the underside of the yacht around the central hull, handholds of sufficient capacity to enable all persons on board to hold on and/or clip on securely   | Mu0,1,2,3,4             |
|             | k) Each escape hatch must have been opened both from inside and outside within 6 months prior to an intended race.   | Mu0,1,2,3,4             |
| 3.07.3      | Multihulls of less than 12m (39.4ft) LOA shall comply either with 3.07.2, or with the following:-  | Mu2,3,4                 |
|             | a) each hull which contains accommodation shall have, for the purpose of cutting an escape hatch, appropriate tools kept ready for instant use adjacent to the intended cutting site. Each tool shall be secured to the vessel by a line and a clip, and                 | Mu2,3,4                 |
|             | b) in each hull at a station where an emergency hatch may be cut, the cutting line shall be clearly marked both inside and outside with an outline and the words ESCAPE CUT HERE   | Mu2,3,4                 |
| <b>3.08</b> | <b>Hatches &amp; companionways</b>   |                         |
| 3.08.1      | No hatch forward of the maximum beam station shall open in such a way that the lid or cover moves into the open position towards the inside of the hull (excepting ports having an area of less than 0.071m <sup>2</sup> (110 sq in)).                                   | **                      |
| 3.08.2      | A hatch shall be:  | **                      |
|             | a) so arranged as to be above the water when the hull is heeled 90 degrees   | **                      |
|             | b) permanently attached  | **                      |
|             | c) capable of being firmly shut immediately and remaining firmly shut in a 180 degree capsized (inversion)   | **                      |
| 3.08.3      | A companionway hatch extending below the local sheerline, shall:   | **                      |
|             | a) not be permitted in a yacht with a cockpit opening aft to the sea (3.09.6)  | **                      |
|             | b) be capable of being blocked off up to the level of the local sheerline, provided that the companionway hatch shall continue to give access to the interior with the blocking devices (e.g. washboards) in place   | **                      |
| 3.08.4      | A companionway hatch shall:  | **                      |
|             | a) be fitted with a strong securing arrangement which shall be operable from above and below including when the yacht is inverted  | **                      |
|             | b) have any blocking devices   | **                      |
|             | i) capable of being retained in position with the hatch open or shut   | **                      |
|             | ii) whether or not in position in the hatchway, secured to the yacht (e.g. by lanyard) for the duration of the race, to prevent their being lost overboard   | **                      |
|             | iii) permit exit in the event of inversion   | **                      |
| <b>3.09</b> | <b>Cockpits - attention is drawn to ISO 11812</b>  |                         |
| 3.09.1      | cockpits shall be structurally strong, self-draining quickly by gravity at all angles of heel and permanently incorporated as an integral part of the hull.  | **                      |
| 3.09.2      | cockpits must be essentially watertight, that is, all openings to the hull must be capable of being strongly and rigidly secured   | **                      |
| 3.09.3      | a bilge pump outlet pipe or pipes shall not be connected to a cockpit drain . See 3.09.8 for cockpit drain minimum sizes   | **                      |
| 3.09.4      | a cockpit sole shall be:-  | **                      |
|             | a) in yachts first launched before 1/03 either at least 2%L above LWL (using IMS value for "L") or at least 2% LWL above LWL, or   | **                      |
|             | b) in yachts first launched on or after 1/03, at least 2% LWL above LWL  | **                      |
| 3.09.5      | a bow, lateral, central or stern well shall be considered a cockpit for the purposes of 3.09   | **                      |
| 3.09.6      | in cockpits opening aft to the sea structural openings aft shall be not less in area than 50% maximum cockpit depth x maximum cockpit width.   | **                      |
| 3.09.7      | Cockpit volume   |                         |

TABLE 5

earliest of age or series date	detail	race category
(i) before 4/92	the total volume of all cockpits below lowest coamings shall not exceed 6% L x B x FA (6% LWL x maximum beam x freeboard abreast the cockpit).	MoMu0,1
(ii) before 4/92	the total volume of all cockpits below lowest coamings shall not exceed 9% L x B x FA (9% LWL x maximum beam x freeboard abreast the cockpit).	MoMu2,3,4
(iii) 4/92 and after	(i) or (ii) above applies except that the lowest coaming shall not be aft of the FA station, and an extension of a cockpit aft of the working deck shall not be included in the calculation	**
(iv) 1/03 and after	calculations in Table 5 shall be based on LWL, maximum beam and freeboard abreast the cockpit	**

Note: The expressions L, B and FA are defined in the IMS rating rule. The values in brackets are acceptable alternatives.

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		Category
3.09.8	Cockpit drains See 3.09.1. Cockpit drain cross section total area (after allowance for screens if fitted) shall be:-	**
	a) in yachts with the earliest of age or series date before 1/72 - at least that of 2 x 25mm (one inch) unobstructed openings or equivalent;	**
	b) in yachts with the earliest of age or series date 1/72 and later - at least that of 4 x 20mm (3/4 inch) unobstructed openings or equivalent	**
	c) except that yachts under 8.5m (28ft) may always comply with 3.09.8 (a).	**
3.10	<b>Sea cocks or valves</b> Sea cocks or valves shall be permanently installed on all through-hull openings below LWL except integral deck scuppers, shaft log, speed indicators, depth finders and the like, however a means of closing such openings shall be provided.	**
3.11	<b>Sheet winches</b> Sheet winches shall be mounted in such a way that an operator is not required to be substantially below deck.	**
3.12	<b>Mast step</b> The heel of a keel stepped mast shall be securely fastened to the mast step or adjoining structure.	**
3.13	<b>Watertight bulkheads</b> <i>Multihulls see also 3.05</i>	
3.13.1	A hull shall have either a watertight "crash" bulkhead within 15% LOA from the bow and abaft the forward end of LWL, or permanently installed closed-cell foam buoyancy effectively filling the forward 30% LOA of the hull.	Mo0Mu0,1,2,3,4
3.13.2	Any required watertight bulkhead shall be strongly built to take a full head of water pressure without allowing any leakage into the adjacent compartment.	Mo0Mu0,1,2,3,4
3.13.3	A yacht shall have at least two watertight transverse main bulkheads (in addition to "crash" bulkheads at bow or stern).	Mo0
3.13.4	Outside deck access for inspection and pumping shall be provided to every watertight compartment terminated by a hull section bulkhead, except that deck access to extreme end "crash" compartments is not required.	Mo0
3.13.5	An access hatch shall be provided in every required watertight bulkhead except a "crash" bulkhead. In yachts launched 1/03 and after, every access hatch shall have closures permanently attached.	Mo0
	a) <i>An access hatch in a watertight bulkhead should have closures permanently attached.</i>	Mo0
	b) <i>An access hatch should be capable of being securely shut within 5 seconds</i>	Mo0
3.13.6	<i>It is strongly recommended that:-</i>	Mo0
	a) <i>an extreme end "crash" bulkhead should be provided at the stern. If practicable the aft "crash" bulkhead should be forward of the rudder post</i>	Mo0
	b) <i>after the flooding of any one major compartment, a yacht should be capable of providing shelter and sustenance for a full crew for 1 week in another, dry, compartment having direct access to the deck</i>	Mo0
	c) <i>compartments between watertight bulkheads should be provided with a means of manually pumping out from a position outside the compartment.</i>	Mo0
3.14	<b>Pulpits, stanchions, lifelines - attention is drawn to ISO 15085</b>	
3.14.1	When due to the particular design of a multihull it is impractical to precisely follow Special Regulations regarding pulpits, stanchions, lifelines, the regulations shall be followed as closely as possible with the aim of minimising the risk of people falling overboard.	Mu0,1,2,3,4
3.14.2	Lifelines required in Special Regulations shall be "taut".	**
	a) <i>As a guide, when a deflecting force of 50 N (5.1 kgf, 11.2 lbf) is applied to a lifeline midway between supports, the lifeline should not deflect more than 50 mm.</i>	**
3.14.3	The following shall be provided:	
	a) a bow pulpit forward of the headstay (however on yachts under 8.5 m (28 ft) the bow pulpit may be aft of the headstay provided the forward upper rail is within 405 mm (16 in) of the headstay)	Mo0,1,2,3,4
	b) a stern pulpit, or lifelines arranged as an adequate substitute, with vertical openings conforming to Table 7	Mo0,1,2,3,4
	c) lifelines supported on stanchions, effectively continuous around a working deck. Lifelines may be substituted by horizontal rails in pulpits. Lifelines shall be permanently supported at intervals of not more than 2.13m (7 ft) and shall not pass outboard of supporting stanchions.	**
	d) upper rails of pulpits at no less height above the working deck than the upper lifelines as in Table 7 and essentially the same height above the waterline as is the upper lifeline at the forward part of the cockpit .	**
	e) upper rails in bow pulpits may be openable but shall be secured shut whilst racing	**
	f) pulpits and stanchions shall be permanently installed. When there are sockets or studs, these shall be through-bolted, bonded or welded. The pulpit(s) and/or stanchions fitted to these shall be mechanically retained without the help of the life-lines. Without sockets or studs, pulpits and/or stanchions shall be through- bolted, bonded or welded.	**
	g) The bases of pulpits and stanchions shall not be further inboard from the edge of the appropriate working deck than 5% of maximum beam or 150 mm (6 in), whichever is greater.	**
	h) Stanchion bases shall not be situated outboard of a working deck. For the purpose of this rule a stanchion or pulpit base shall be taken to include a sleeve or socket into which a stanchion or pulpit tube is fitted but shall exclude a baseplate which carries fixings into the deck or hull.	**
	i) provided the complete lifeline enclosure is supported by stanchions and pulpit bases effectively within the working deck, lifeline terminals and support struts may be fixed to a hull aft of the working deck	**
	j) Lifelines need not be fixed to a bow pulpit if they terminate at, or pass through, adequately braced stanchions set	**

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inside and overlapping the bow pulpit, provided that the gap between the upper lifeline and the bow pulpit does not exceed 150 mm (6 in).

- k) Stanchions shall be straight and vertical except that:-
  - (i) within the first 50 mm (2 in) from the deck, stanchions may be displaced horizontally (cranked) from the point at which they emerge from the deck or stanchion base by not more than 10 mm (3/8 in), and
  - (ii) stanchions may be angled to not more than 10 degrees from vertical from any single point above 50 mm (2 in) from the deck.

### 3.14.4 Special requirements for pulpits, stanchions, lifelines on multihulls

- a) on a trimaran - a bow pulpit on the main hull, with lifelines around the main hull supported on stanchions. The lifelines may be interrupted where there are nets or crossbeam wings outboard of the main hull
- b) on a trimaran - where a net joins the base of a bow pulpit on the main hull, an additional lifeline from the top of the pulpit to the forward crossbeam at or outboard of the crossbeam mid-point.
- c) on a trimaran - at a main or emergency steering position on an outrigger with or without a cockpit, lifelines protecting an arc of 3 meters diameter centred on the steering position. (When measuring between lifelines their taut, undeflected positions shall be taken for this purpose).
- d) on a catamaran - lifelines from bow to stern on each hull. A catamaran without a forward or aft crossbeam shall have transverse lifelines at the extremity of the net forward and aft. The transverse lifelines shall be attached to bow and stern pulpits or superstructure. A webbing, strop or rope (minimum diameter 6mm) shall be rove zig-zag between the transverse lifelines and the net.

### 3.14.5 Lifeline height, vertical openings, number of lifelines

TABLE 7

LOA	earliest of age/ series date	minimum requirements
under 8.5 m(28 ft)	before 1/92	taut single lifeline at a height of no less than 450 mm (18 in) above the working deck. No vertical opening shall exceed 560 mm (22 in).
under 8.5 m(28 ft)	1/92 and after	as for under 8.5 m(28 ft) above except that when an intermediate lifeline is fitted no vertical opening shall exceed 380 mm (15 in).
8.5 m (28 ft) and over	before 1/93	taut double lifelines with upper lifeline at a height of no less than 600 mm (24 in) above the working deck. No vertical opening shall exceed 560 mm (22 in)
8.5 m (28 ft)and over	1/93 and after	as for 8.5 m (28 ft) and over in table entry above, except that no vertical opening shall exceed 380 mm (15 in).
all	all	on yachts with intermediate lifelines the intermediate line shall be not less than 230 mm (9 in) above the working deck.

### 3.14.6 Lifeline minimum diameters, required materials, specifications

- a) Lifelines shall be stranded stainless steel wire of minimum diameter in table 8 below. Lifelines installed from 1/99 shall be uncoated and used without close-fitting sleeving.
- b) *Grade 316 stainless wire is recommended*
- c) A taut lanyard of synthetic rope may be used to secure lifelines provided the gap it closes does not exceed 100 mm (4 in).
- d) All wire, fittings, anchorage points, fixtures and lanyards shall comprise a lifeline enclosure system which has at all points at least the breaking strength of the required lifeline wire.

TABLE 8

LOA	minimum wire diameter
under 8.5 m (28ft)	3 mm (1/8 in)
8.5m - 13 m	4 mm (5/32 in)
over 13 m (43 ft)	5 mm (3/16 in)

### 3.14.7 Pulpits, stanchions, lifelines - limitation on materials

TABLE 9

LOA	earliest of age or series date	detail
any	before 1/87	carbon fibre is not recommended in stanchions pulpits and lifelines.
any	1/87 and after	stanchions, pulpits and lifelines shall not be made of carbon fibre.

Category

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Mu0,1,2,3,4

Mu0,1,2,3,4

Mu0,1,2,3,4

Mu0,1,2,3,4

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# OFFSHORE SPECIAL REGULATIONS

		Category												
<b>3.15</b>	<b>Multihull nets or trampolines</b>													
3.15.1	The word "net" is interchangeable with the word "trampoline"	Mu0,1,2,3,4												
	a) A net shall be:-													
	b) essentially horizontal	Mu0,1,2,3,4												
	c) made from durable woven webbing, water permeable fabric, or mesh with openings not larger than 5.08cm (2 inches) in any dimension. Attachment points shall be planned to avoid chafe. The junction between a net and a yacht shall present no risk of foot trapping	Mu0,1,2,3,4												
	d) solidly fixed at regular intervals on transverse and longitudinal support lines and shall be fine-stitched to a bolt rope	Mu0,1,2,3,4												
	e) able to carry the full weight of the crew either in normal working conditions at sea or in case of capsizes when the yacht is inverted.	Mu0,1,2,3,4												
	f) <i>It is recommended that lines used to tie the nets should be individually tied and not continuously connected to more than four attachment points per connecting line</i>	Mu0,1,2,3,4												
<b>3.15.2</b>	<b>Trimarans with double crossbeams</b>													
	a) a trimaran with double crossbeams shall have nets on each side covering:-	Mu0,1,2,3,4												
	b) the rectangles formed by the crossbeams, central hull and outrigger													
	c) the triangles formed by the aft end of the central pulpit, the mid-point of each forward crossbeam, and the intersection of the crossbeam with the central hull	Mu0,1,2,3,4												
	d) the triangles formed by the aftermost part of the cockpit or steering position (whichever is furthest aft), the mid-point of each after crossbeam, and the intersection of the crossbeam with the central hull, except that:-	Mu0,1,2,3,4												
	e) the requirement in 3.15.2(d) shall not apply when cockpit coamings and/or lifelines are present which comply with the minimum height requirements in Table 7	Mu0,1,2,3,4												
<b>3.15.3</b>	<b>Trimarans with single crossbeams</b>													
	a) a trimaran with single crossbeams shall have nets between the central hull and each outrigger:-	Mu0,1,2,3,4												
	b) on each side between two straight lines from the intersection of the crossbeam with the outrigger, respectively to the aft end of the pulpit on the central hull, and to the aftermost point of the cockpit or steering position on the central hull (whichever is furthest aft)	Mu0,1,2,3,4												
<b>3.16</b>	<b>Catamarans</b>													
	a) On a catamaran the total net surface shall be limited:													
	b) laterally by the hulls	Mu0,1,2,3,4												
	c) longitudinally by transverse stations through the forestay base, and the aftermost point of the boom lying fore and aft. However, a catamaran with a central nacelle (non-immersed) may satisfy the regulations for a trimaran	Mu0,1,2,3,4												
<b>3.17</b>	<b>Toe rail</b>													
3.17.1	A toe rail of minimum height 25 mm (1 in) shall be permanently installed around the foredeck from abreast the mast, except in way of fittings and not further inboard from the edge of the working deck than one third of the local half-beam.	Mo0,1,2,3												
3.17.2	The following variations shall apply:-	Mo0,1,2,3												
	TABLE 10													
	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;"></th> <th style="width: 20%;">earliest of age or series date</th> <th style="width: 65%;">minimum requirements</th> </tr> </thead> <tbody> <tr> <td>any</td> <td>before 1/81</td> <td>a toe rail minimum height of 20 mm (3/4 in) is acceptable.</td> </tr> <tr> <td>any</td> <td>before 1/93</td> <td>an additional lifeline of minimum height 25 mm (1 in) and maximum height 50 mm (2 in) is acceptable in lieu of a toe rail (but shall not count as an intermediate lifeline).</td> </tr> <tr> <td>any</td> <td>1/94 and after</td> <td>the toe rail shall be fitted as close as practicable to the vertical axis of stanchion bases but not further inboard than 1/3 the local half-beam.</td> </tr> </tbody> </table>		earliest of age or series date	minimum requirements	any	before 1/81	a toe rail minimum height of 20 mm (3/4 in) is acceptable.	any	before 1/93	an additional lifeline of minimum height 25 mm (1 in) and maximum height 50 mm (2 in) is acceptable in lieu of a toe rail (but shall not count as an intermediate lifeline).	any	1/94 and after	the toe rail shall be fitted as close as practicable to the vertical axis of stanchion bases but not further inboard than 1/3 the local half-beam.	Mo0,1,2,3
	earliest of age or series date	minimum requirements												
any	before 1/81	a toe rail minimum height of 20 mm (3/4 in) is acceptable.												
any	before 1/93	an additional lifeline of minimum height 25 mm (1 in) and maximum height 50 mm (2 in) is acceptable in lieu of a toe rail (but shall not count as an intermediate lifeline).												
any	1/94 and after	the toe rail shall be fitted as close as practicable to the vertical axis of stanchion bases but not further inboard than 1/3 the local half-beam.												
<b>3.18</b>	<b>Toilet</b>													
3.18.1	A toilet, permanently installed	MoMu0,1,2												
3.18.2	A toilet, permanently installed or fitted bucket	MoMu3,4												
3.19	<b>Bunks</b>													
3.19.1	Bunks, permanently installed, one for each member of the declared crew	MoMu0												
3.19.2	Bunks, permanently installed	MoMu1,2,3,4												
<b>3.20</b>	<b>Cooking facilities</b>													
3.20.1	A cooking stove, permanently installed or securely fastened with safe accessible fuel shutoff control capable of being safely operated in a seaway	MoMu0,1,2,3												
<b>3.21</b>	<b>Water tanks &amp; drinking water</b>													
<b>3.21.1</b>	<b>Tanks</b>													
	a) A yacht shall have a permanently installed delivery pump and water tank(s):	MoMu0,1,2,3												
	i dividing the water supply into at least three compartments	MoMu0												
	ii dividing the water supply into at least two compartments	MoMu1												
<b>3.21.2</b>	<b>Drinking water</b>													

# OFFSHORE SPECIAL REGULATIONS

	Category
a) when not specified in the Notice of Race the quantity of drinking water on board at the start of a race shall be:	MoMu0
i in the absence of a watermaker, at least 9 litres (2 UK gallons or 2.4 US gallons) per person per 1000 miles or	MoMu0
ii when a watermaker is on board at least 3 litres (0.7 UK gallon or 0.8 US gallon) per person per 1000 miles.	MoMu0
<b>3.21.3 Emergency water</b>	
a) at least 9 litres (2 UK gallons, 2.4 US gallons) of drinking water for emergency use shall be provided in a dedicated and sealed container or container(s)	MoMu0, 1, 2, 3
<b>3.22 Hand holds</b>	
Adequate hand holds shall be fitted below deck so that crew members may move about safely at sea.	**
<b>3.23 Bilge pumps and buckets</b>	
<b>3.23.1</b> No bilge pump may discharge into a cockpit unless that cockpit opens aft to the sea.	**
<b>3.23.2</b> Bilge pumps shall not be connected to cockpit drains. (3.09)	**
<b>3.23.3</b> Bilge pumps and strum boxes shall be readily accessible for maintenance and for clearing out debris	**
<b>3.23.4</b> Unless permanently installed, each bilge pump handle shall be provided with a lanyard or catch or similar device to prevent accidental loss	**
<b>3.23.5</b> The following shall be provided:	
a) two permanently installed manual bilge pumps, one operable above, the other below deck. Each pump shall be operable with all cockpit seats, hatches and companionways shut and shall have permanently installed discharge pipe(s) of sufficient capacity to accommodate simultaneously both pumps	Mo0, 1, 2
b) one permanently installed manual bilge pump either above or below deck. The pump shall be operable with all cockpit seats, hatches and companionways shut and shall have a permanently installed discharge pipe.	Mu0, 1, 2
c) multihulls shall have provision to pump out all watertight compartments (except those filled with impermeable buoyancy)	Mu0, 1, 2, 3, 4
d) one permanently installed manual bilge pump operable with all cockpit seats, hatches and companionways shut	Mo3
e) one manual bilge pump	Mo4
f) two buckets of stout construction each with at least 9 litres (2 UK gallons, 2.4 US gallons) capacity. Each bucket to have a lanyard.	**
<b>3.24 Compass</b>	
<b>3.24.1</b> The following shall be provided:-	
a) a marine magnetic compass, independent of any power supply, permanently installed and correctly adjusted with deviation card	**
b) a compass in addition to that required in 3.24.1 (a)	MoMu0, 1, 2, 3
<b>3.25 Halyards.</b>	
No mast shall have less than two halyards, each capable of hoisting a sail.	**
<b>3.26 Bow fairlead</b>	
A bow fairlead, closed or closable and a cleat or securing arrangement, suitable for towing shall be permanently installed.	Mo0
<b>3.27 Navigation lights (see 2.03.3)</b>	
<b>3.27.1</b> Navigation lights shall be mounted so that they will not be masked by sails or the heeling of the yacht	**
<b>3.27.2</b> Navigation lights shall not be mounted below deck level and should be at no less height than immediately under the upper lifeline	**
<b>3.27.3</b> Navigation light intensity	**
TABLE 11	
LOA	guide to required minimum power rating for an electric lamp in a navigation light
under 12 m (39.4 ft)	10 W
12 m (39.4 ft) and above	25 W
<b>3.27.4</b> reserve navigation lights shall be carried having the same minimum specifications as the navigation lights above, and shall have an alternate power source, and wiring or supply system essentially separate from that used for the normal navigation lights	MoMu0, 1, 2, 3
<b>3.27.5</b> spare bulbs for navigation lights shall be carried, or for lights not dependent on bulbs, appropriate spares.	**
<b>3.28 Engines, generators, fuel</b>	
<b>3.28.1</b> A securely covered permanently installed inboard propulsion engine shall be provided together with permanently installed exhaust and fuel supply systems and fuel tank(s).	Mo0, 1, 2, 3Mo0
<b>3.28.2</b> A propulsion engine shall be provided, either in accordance with 3.28.1 above or in a multihull of less than 12m (39.4 ft) LOA, an outboard engine together with permanently installed fuel supply systems and fuel tank(s).	Mu1, 2, 3
a) A separate generator for electricity is optional. However, when a separate generator is carried it shall be permanently installed, securely covered, and shall have permanently installed exhaust and fuel supply systems and fuel tank(s). A separate generator shall comply with 3.28.3 (c) and (e)	MoMu0, 1, 2, 3
b) A portable generator shall never be operated inside a yacht	MoMu0, 1, 2, 3
<b>3.28.3</b> A propulsion engine required by Special Regulations shall:-	
a) provide a minimum speed in knots of (1.8 x square root of LWL in metres) or (square root of LWL in feet)	MoMu0, 1, 2, 3

# OFFSHORE SPECIAL REGULATIONS

	<b>Category</b>
b) have a minimum amount of fuel which may be specified in the Notice of Race but if not, shall be sufficient to be able to meet charging requirements for the duration of the race and to motor at the above minimum speed for at least 8 hours. When a separate generator is carried in accordance with 3.28.2 (a) the fuel for charging requirements may be allocated to the generator in lieu of the propulsion engine	MoMu0,1,2,3
c) have adequate protection from the effects of heavy weather	MoMu0,1,2,3
d) when an electric starter is the only method for starting the engine, have a separate battery, the primary purpose of which is to start the engine.	MoMu0,1,2,3
e) have each fuel tank provided with a shutoff valve. Except for permanently installed linings or liners, a flexible tank is not permitted as a fuel tank.	MoMu0,1,2,3
3.28.4 It is recommended that consideration be given to the installation of sealed batteries, noting however that special charging devices may be specified by the battery manufacturers	MoMu0,1,2,3
<b>3.29 Marine radio, navigational position-fixing device</b>	
<i>Provision of GMDSS and DSC is unlikely to be mandatory for small craft during the term of the present Special Regulations However it is recommended that owners consider including these facilities when installing new equipment.</i>	MoMu0,1,2,3
3.29.1 The following shall be provided:	
a) A marine radio transceiver (or if stated in the Notice of Race, a satcom transceiver). When the marine radio transceiver is VHF:	MoMu0,1,2,3
i it shall have a rated output power of 25W	MoMu0,1,2,3
ii it shall have a masthead antenna and co-axial feeder with not more than 40% power loss	MoMu0,1,2,3
iii it should include channel 72 (an international ship-ship channel which, by common use, has become widely accepted as primary choice for ocean racing yachts anywhere in the world)	MoMu0,1,2,3
b) An emergency antenna when the regular antenna depends upon the mast.	MoMu0,1,2,3
c) Independent of a main radio or transceiver:-	
i a watertight hand-held marine VHF transceiver	Mo0,1,Mu0,1,2
ii a watertight hand-held marine VHF transceiver, stowed in accordance with 4.21.1	Mu3,4
iii a radio receiver capable of receiving weather bulletins	**
d) It is strongly recommended that a hand-held watertight transceiver operating on one or more aviation frequencies including 121.5 MHz. should be provided. This will enable communications between the yacht and aircraft on SAR duties, not all of which have maritime VHF	MoMu0
e) a D/F (direction-finding) radio for man-overboard recovery (5.07.1(b))	MoMu0
f) an automatic position fixing device (e.g. GPS)	MoMu0,1,2,3

## SECTION 4 - PORTABLE EQUIPMENT & SUPPLIES for the yacht

(for water & fuel see 3.21 and 3.28)

<b>4.01 Sail letters &amp; numbers</b>	
4.01.1 Yachts which are not in an ISAF International Class or Recognized class shall comply with RRS 77 and Appendix G as closely as possible, except that sail numbers allotted by a State authority are acceptable	**
4.01.2 Sail numbers and letters of the size carried on the mainsail must be displayed by alternative means when none of the numbered sails is set.	**
4.02 Hull marking	MoMu0,1
4.02.1 To assist in SAR location a hull should show:	MoMu0,1
a) on the coachroof, deck and/or topsides where it can best be seen at least one block or strip of highly-visible colour (e.g. dayglow pink, orange or yellow) of at least one square meter in area	MoMu0,1
b) on each underwater appendage an area of highly-visible colour.	MoMu0,1
<b>4.03 Soft wood plugs</b>	
Soft wood plugs, tapered and of the appropriate size, shall be attached or stowed adjacent to the appropriate fitting for every through-hull opening.	**
<b>4.04 Jackstays, clipping points and static safety lines</b>	
4.04.1 The following shall be provided:	
a) Jackstays:	MoMu0,1,2,3
i attached to through-bolted or welded deck plates or other suitable and strong anchorage fitted on deck, port and starboard of the yacht's centre line to provide secure attachments for safety harness	MoMu0,1,2,3
ii comprising stainless steel 1 x 19 wire of minimum diameter 5 mm (3/16 in), or webbing of equivalent strength. (20kN -2 040 kgf or 4 500 lbf-) breaking strain webbing is recommended)	MoMu0,1,2,3
iii which, when made from stainless steel wire installed on or after 1/99 shall be uncoated and used without any sleeving	MoMu0,1,2,3
iv at least two of which should be fitted on the underside of a multihull in case of inversion.	MoMu0,1,2,3
4.04.2 Clipping points:	
a) attached to through-bolted or welded deck plates or other suitable and strong anchorage points adjacent to stations such as the helm, sheet winches and masts, where crew members work for long periods.	MoMu0,1,2,3
b) which, together with jackstays and static safety lines shall enable a crew member:	MoMu0,1,2,3
i to clip on before coming on deck and unclip after going below	MoMu0,1,2,3



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		Category
	b) crews must be aware of alternative methods of steering the yacht in any sea condition in the event of rudder loss. At least one method must have been proven to work on board the yacht. An inspector may require that this method be demonstrated.	MoMu0,1,2,3
<b>4.16</b>	<b>Tools and spare parts</b> Tools and spare parts, including effective means to quickly disconnect or sever the standing rigging from the hull shall be provided.	**
<b>4.17</b>	<b>Yacht's name</b> Yacht's name shall be on miscellaneous buoyant equipment, such as lifejackets, oars, cushions, lifebuoys and lifeslings etc.	**
<b>4.18</b>	<b>Marine grade retro-reflective material</b>	**
4.18.1	Marine grade retro-reflective material shall be fitted to lifebuoys, lifeslings and lifejackets.	**
<b>4.19</b>	<b>EPIRBs and PLBs</b>	
4.19.1	A 406 MHz EPIRB or an INMARSAT type "E" EPIRB shall be provided	MoMu0,1,2
4.19.2	A 406 MHz EPIRB should if possible include a GPS position-fixing chip (the device may then be known as a "GPiRB"). INMARSAT type "E" EPIRBs include GPS positioning.	MoMu0,1,2
4.19.3	<i>A list of registration numbers of 406 EPIRBs should be maintained by event organisers who may test EPIRB transmissions in co-operation with the SAR authorities</i>	MoMu0,1,2
4.19.4	<i>121.5 MHz beacons are no longer recommended for distress alerting. Satellite processing of 121.5 MHz will eventually be discontinued. 121.5 MHz beacons, now known as "PLBs" are used for local area homing both in man-overboard beacons (3.29.1) and also as secondary transmitters within a 406 EPIRB.</i> <i>EPIRBs should be tested in accordance with manufacturer's instructions when first commissioned and then at least annually. Consideration should be given to the provision of a locator device (eg an "Argos" beacon) operating on non-SAR frequencies, to aid salvage if the craft is abandoned</i>	MoMu0,1,2 Mu0,1
<b>4.20</b>	<b>Liferafts</b>	
4.20.1	Liferaft Construction	
	a) Liferaft(s) shall be provided capable of carrying the whole crew and meeting the following requirements-	MoMu0,1,2
	b) Liferaft(s) shall be built in accordance with SOLAS regulations (see the LSA code 1997 Chapter IV published by IMO) except that modifications in 4.20.1 (b)(i) and (ii) below are acceptable	MoMu0
	i A liferaft which in all other respects is built to SOLAS regulations may however have a capacity of 4 persons or more (otherwise the smallest SOLAS raft is for 6)	MoMu0
	ii A SOLAS liferaft may be stowed in a purpose-built compartment as in 4.20.2 (b) in lieu of a conventional transportable rigid container	MoMu0
	c) each liferaft shall contain at least a SOLAS "A" pack	MoMu0
	d) Liferaft(s) shall be either SOLAS or shall be in accordance with Special Regulations Appendix A part 1 or part 2 (Appendix A part 2, printed separately, comes into force for liferafts built on or after 1/03)	MoMu1,2
	i A liferaft which in all other respects is built to SOLAS regulations may however have a capacity of 4 persons or more (otherwise the smallest SOLAS raft is for 6)	MoMu1,2
	ii A SOLAS liferaft may be stowed in a purpose-built compartment as in 4.20.2 (b) in lieu of a conventional transportable rigid container	MoMu1,2
	iii A SOLAS liferaft used in a race category other than 0 shall contain either an A or a B pack	MoMu1,2
	e) For liferafts built to Special Regulations Appendix A part 1 or part 2, a National Authority or Race Organiser may prescribe for races within its jurisdiction that an insulated floor is not required. If no prescription is made it shall be assumed that the insulated floor is required.	MoMu1,2
	f) Owners purchasing a new liferaft during 2002 are strongly recommended to opt for the specification in Appendix A part 2, as soon as these liferafts are available.	MoMu1,2
4.20.2	Liferaft stowage	
	A liferaft shall be stowed either:	MoMu0,1,2
	a) on the working deck; or	MoMu0,1,2
	b) in a purpose-built rigid compartment or compartments opening into or adjacent to the cockpit or working deck, or opening through the transom, containing liferaft(s) only provided that:	MoMu0,1,2
	i each compartment is watertight or self-draining (self-draining compartments will be counted as part of the cockpit volume except when entirely above working deck level); and	MoMu0,1,2
	ii the cover of each compartment is capable of being easily opened under water pressure; and	MoMu0,1,2
	iii the compartment is designed and built to allow the liferaft to be removed and launched quickly and easily; or	MoMu0,1,2
	iv (only available to yachts with age or series date earlier than 6/01) packed in valise(s) each not exceeding 40 kg securely stowed below deck adjacent to the companionway	MoMu0,1,2
	v <i>It is strongly recommended that liferaft stowage should follow 4.20.2 (b) (i), (ii) and (iii) above, and</i>	MoMu0,1,2
	vi <i>that liferafts of more than 40kg weight should be stowed in such a way that they can be dragged or slid into the sea without the need for significant lifting, and</i>	MoMu0,1,2
	vii <i>that the yacht end of the painter should be permanently made fast to a strong point on board the yacht, and</i>	MoMu0,1,2
	viii <i>that on a multihull, liferaft stowage should be such that the liferaft can be readily removed and launched regardless of whether or not the yacht is inverted.</i>	Mu0,1,2
4.20.3	Recovery Time. Each raft shall be capable of being got to the lifelines or into the water within 15 seconds.	MoMu0,1,2

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	Category
<b>4.20.4 Liferaft servicing and inspection</b>	
a) Servicing and/or inspection certificates or copies shall be kept on board the yacht	MoMu0,1,2
b) Every SOLAS liferaft shall have a valid annual certificate of new or serviced status from the liferaft manufacturer or the manufacturer's approved service station	MoMu0,1,2
c) For liferafts built to Special Regulations Appendix A part 1 each liferaft shall either have a valid annual certificate of new or serviced status from the liferaft manufacturer or the manufacturer's approved service station, or when a manufacturer so specifies for a non-SOLAS liferaft it shall annually be inspected (not necessarily unpacked) and the yacht provided with written confirmation by the manufacturer or the manufacturer's approved service station stating that the inspection was satisfactory.	MoMu,1,2
d) A liferaft built in accordance with Special Regulations Appendix A part 2 shall either have a valid annual certificate of new or serviced status from the liferaft manufacturer or the manufacturer's approved service station, or when the liferaft has been built to follow the option for an extended period between initial services the liferaft, provided the manufacturer so specifies, shall have its first service no longer than 3 years after commissioning and its second service no longer than 2 years after the first. Subsequent services, and services for all other liferafts, shall be at intervals of not more than 12 months.	MoMu,1,2
e) <b>Notwithstanding the specified servicing periods it is strongly recommended that a liferaft should be carefully inspected externally at least annually and taken for servicing if there is any sign of damage or deterioration</b>	MoMu,1,2
<b>4.21 Grab bags</b>	
<b>4.21.1 Grab bag or emergency container for multihulls without liferafts</b>	
a) A multihull without a liferaft shall stow in a watertight compartment, or in a grab bag supplied with a lanyard and clip, accessible with the multihull upright or inverted, the following items:-	Mu3,4
b) <i>It is not required to duplicate items below which are already required by Special Regulations to be on board</i>	Mo3,4
c) a watertight hand-held marine VHF transceiver plus a spare set of batteries	Mu3,4
d) a watertight flashlight with spare batteries and bulb	Mu3,4
e) 2 red parachute and 3 red hand flares	
f) a watertight strobe light with spare batteries	Mu3,4
g) a knife	Mu3,4
<b>4.21.2 Grab bag to accompany liferafts</b>	
a) <i>A yacht with a liferaft is recommended to stow in a grab bag supplied with a lanyard and clip, the following items:-</i>	MoMu0,1,2
b) <i>It is not intended to duplicate items below which are already required by Special Regulations to be on board</i>	MoMu0,1,2
c) <i>a watertight hand-held marine VHF transceiver plus a spare set of batteries</i>	MoMu0,1,2
d) <i>a watertight flashlight with spare batteries and bulb</i>	MoMu0,1,2
e) <i>2 red parachute and 3 red hand flares</i>	MoMu0,1,2
f) <i>watertight hand-held GPS</i>	MoMu0,1,2
g) <i>an SART (Search and Rescue Transponder beacon)</i>	MoMu0,1,2
h) <i>dry suits or survival bags</i>	MoMu0,1,2
i) <i>second sea anchor for the liferaft (recommended to ISO 17339 with a swivel and &gt;30m line, diameter &gt;9.5mm)</i>	MoMu0,1,2
j) <i>two safety tin openers</i>	MoMu0,1,2
k) <i>406 or type "E" EPIRB registered to the yacht</i>	MoMu0,1,2
l) <i>First-Aid Kit</i>	MoMu0,1,2
m) <i>water</i>	MoMu0,1,2
n) <i>signalling mirror</i>	MoMu0,1,2
o) <i>high energy food</i>	MoMu0,1,2
q) <i>nylon string, polythene bags, seasickness tablets.</i>	MoMu0,1,2
r) <i>watertight hand-held aviation VHF transceiver (if race area warrants)</i>	MoMu0,1,2
<b>4.22 Lifebuoy(s)</b>	
<b>4.22.1</b> The following shall be provided within reach of the helmsman and ready for instant use:	**
a) a lifebuoy with a self-igniting light and a drogue or a Lifesling with a self-igniting light and without a drogue.	**
b) In addition to a) above, one lifebuoy within reach of the helmsman and ready for instant use, equipped with:-	MoMu0,1,2
i) a whistle, a drogue, a self-igniting light and	MoMu0,1,2
ii) a pole and flag (dan buoy). The pole shall be carried on board permanently extended, except that automatic extension (eg by compressed gas or spring action) is permitted provided the device activates fully in less than 20 seconds. The pole and flag (dan buoy) shall be attached to the lifebuoy with 3 m (10 ft) of floating line and shall be so constructed that the flag flies at least 1.8 m (6 ft) off the water.	MoMu0,1,2
<b>4.22.2</b> When at least two lifebuoys (and/or Lifeslings) are carried at least one of them shall depend entirely on permanent (eg foam) buoyancy	MoMu0,1,2
<b>4.22.3</b> Each inflatable lifebuoy and any automatic device (eg pole and flag extended by compressed gas) shall be tested and serviced at intervals in accordance with its manufacturer's instructions.	**
<b>4.22.4</b> Each lifebuoy or lifesling shall be fitted with marine grade retro-reflective material (4.18).	**
<b>4.23 Pyrotechnic signals</b>	
<b>4.23.1</b> Pyrotechnic signals shall be provided conforming to SOLAS LSA Code Chapter III Visual Signals and not older than the stamped expiry date (if any) or if no expiry date stamped, not older than 4 years.	**

# OFFSHORE SPECIAL REGULATIONS

TABLE 13

red parachute flares LSA III 3.1	red hand flares LSA III 3.2	white hand flares*	orange smoke LSA III 3.3	race category
6	4	4	2	MoMu0,1
4	4	4	2	MoMu2,3
	4	4	2	Mo4
2	4	4	2	Mu4

\*Specifications of white flares (except colour and candela rating) should comply with the LSA Code Chapter III 3.2.

## 4.24 Heaving line

- a) A heaving line shall be provided 15 m - 25 m (50 ft - 75 ft) length readily accessible to the cockpit.  
 b) The "throwing sock" type of line is recommended - see Appendix D

## 4.25 Cockpit knife

A strong, sharp knife, sheathed, attached by a lanyard shall be provided readily accessible in each cockpit.

## 4.26 Storm & heavy weather sails

### 4.26.1 design

- a) **It is strongly recommended that owners consult their designer and sailmaker to decide the most effective size for storm and heavy weather sails. The purpose of these sails is to provide safe propulsion for the yacht in severe weather - they are not intended as part of the racing wardrobe. The areas below are maxima. Smaller areas are likely to suit some yachts according to their stability and other characteristics.**

### 4.26.2 high visibility

- a) *It is strongly recommended that every storm sail should either be of highly-visible coloured material (eg dayglo pink, orange or yellow) or have a highly-visible coloured patch added on each side; and also that a rotating wing mast used in lieu of a trysail should have a highly-visible coloured patch on each side*

### 4.26.3 materials

- a) Aromatic polyamides, carbon and similar fibres shall not be used in a trysail or storm jib but spectra/dyneema and similar materials are permitted  
 b) *It is strongly recommended that a heavy-weather jib does not contain aromatic polyamides, carbon and similar fibres other than spectra/dyneema*

the following shall be provided:-

### 4.26.4 for each storm and heavy-weather sail, sheeting positions on deck

### 4.26.5 for each storm or heavy-weather jib, a strong securing method (which does not comprise or depend upon a luff-groove device) for attachment to a stay

### 4.26.6 storm trysail

- a) a storm trysail capable of being sheeted independently of the boom and of area not greater than 17.5% mainsail luff length x mainsail foot length. It shall have neither headboard nor battens. However a storm trysail is not required in a yacht with a rotating wing mast which can adequately substitute for a trysail  
 b) the yacht's sail number and letter(s) placed on both sides of the trysail (or rotating wing mast if fitted) in as large a size as practicable  
 c) It is strongly recommended that a trysail track should enable the trysail to be hoisted quickly

### 4.26.7 a storm jib of area not greater than 5% height of the foretriangle squared, and luff maximum length 65% height of the foretriangle

### 4.26.8 a heavy-weather jib of area not greater than 13.5% height of the foretriangle squared, and without reef points (or suitable heavy-weather sail in a yacht with no forestay)

### 4.26.9 either - a storm trysail as in 4.26.6 above, or - mainsail reefing to reduce the luff by at least 40%.

## 4.27 Drogue, sea anchor

*A drogue (for deployment over the stern), or alternatively a sea anchor or parachute anchor (for deployment over the bow), is strongly recommended (see Appendix F).*

## SECTION 5 - PERSONAL EQUIPMENT

### 5.01 Lifejacket

#### 5.01.1 Each crew member shall have a lifejacket as follows:

- a) equipped with a whistle  
 b) fitted with marine grade retro-reflective material (4.18)  
 c) compatible with the wearer's safety harness  
 d) If inflatable, regularly checked for air retention  
 e) clearly marked with the yacht's or wearer's name

#### 5.01.2 It is strongly recommended that a lifejacket has:-

- a) a lifejacket light in accordance with SOLAS LSA code 2.2.3 (white, > 0.75 candelas, > 8 hours)  
 b) > 150N buoyancy, arranged to securely suspend an unconscious man face upwards at approximately 45 degrees to the water surface - in accordance with EN396 or near equivalent.

Category

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Mu0,1,2,3

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MoMu0,1,2

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MoMu0,1,2

MoMu0,1,2

MoMu0,1,2

MoMu0,1,2

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MoMu3,4

MoMu0,1

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# OFFSHORE SPECIAL REGULATIONS

		Category
	c) a crotch strap or thigh straps	**
	d) a splashguard. See EN394	**
<b>5.02</b>	<b>Safety harness and safety lines (tethers)</b>	
5.02.1	Each crew member shall have a safety harness, and safety line not more than 2m long with a snaphook at each end	MoMu0, 1, 2, 3
	a) <b>Warning it is possible for a plain snaphook to disengage from a U-bolt if the hook is rotated under load at right-angles to the axis of the U-bolt. For this reason the use of snaphooks with positive locking devices is strongly recommended</b>	MoMu0, 1, 2, 3
5.02.2	At least 30% of the crew shall each, in addition to the above, be provided with either:-	MoMu0, 1, 2, 3
	a) a safety line not more than 1m long, or	MoMu0, 1, 2, 3
	b) a mid-point snaphook on an existing 2m safety line	MoMu0, 1, 2, 3
5.02.3	A safety line purchased in 1/01 or later shall have a coloured flag embedded in the stitching, to indicate an overload. A line which has been overloaded shall be replaced as a matter of urgency.	MoMu0, 1, 2, 3
5.02.4	A crew member's harness and lifejacket shall be compatible	MoMu0, 1, 2, 3
5.02.5	It is strongly recommended that:-	MoMu0, 1, 2, 3
	a) a harness and safety line should comply with EN 1095 (ISO 12401) or near equivalent	MoMu0, 1, 2, 3
	b) static safety lines should be securely fastened at work stations	MoMu0, 1, 2, 3
	c) a harness should be fitted with a crotch strap or thigh straps	MoMu0, 1, 2, 3
	d) to draw attention to wear and damage, stitching on harness and safety lines should be of a colour contrasting strongly with the surrounding material	MoMu0, 1, 2, 3
	e) snaphooks should be of a type which will not self-release from a U-bolt (5.02.1 (a)) and which can be easily released under load (crew members are reminded that a personal knife may free them from a safety line in emergency)	MoMu0, 1, 2, 3
	f) a crew member before a race should adjust a harness to fit then retain that harness for the duration of the race	MoMu0, 1, 2, 3
<b>5.03</b>	<b>Miniflares or personal location lights</b>	
	Two packs of miniflares or two personal location lights (either SOLAS or strobe) shall be provided for each crew member: one should be attached to, or carried on, the person when on deck at night.	MoMu0
<b>5.04</b>	<b>Foul weather suits</b>	
	a) A foul weather suit with hood shall be provided for each crew member.	MoMu0
	b) <i>It is recommended that a foul weather suit should be fitted with marine-grade retro-reflective material, and should have high-visibility colours on its upper parts and sleeve cuffs. See 4.18</i>	**
<b>5.05</b>	<b>Knife</b>	
	A knife, one shall be provided for each crew member.	MoMu0
<b>5.06</b>	<b>Watertight flashlight</b>	
	A watertight flashlight, one shall be provided for each crew member.	MoMu0
<b>5.07</b>	<b>Survival equipment</b>	
5.07.1	One set of Survival Equipment shall be provided for each crew member to include:	MoMu0
	a) an immersion suit (attention is drawn to pr EN1913-1 constant wear suits, pr EN 1913-2 abandonment suits and the LSA Code Chapter II, 2.3).	MoMu0
	b) a personal 121.5MHz distress beacon (PLB) for use with the on-board DF equipment (3.29.1(e))	MoMu0
	c) It is strongly recommended that an immersion suit should be provided for each crew member in a multihull in conditions where there is a potential for hypothermia	Mu1, 2, 3, 4
<b>SECTION 6 - TRAINING</b>		
<b>6.01</b>	<b>At least 30% of a crew including the skipper shall have undertaken training within the five years before the start of the race in both theoretical and practical sessions in the following topics. A model training course is shown in Special Regulations Appendix G.</b>	MoMu0, 1
	a) <i>It is strongly recommended that all crew members should undertake personal survival training, at least once every five years</i>	**
6.01.2	care and maintenance of safety equipment	MoMu0, 1
6.01.3	liferafts	MoMu0, 1
6.01.4	storm sails	MoMu0, 1
6.01.5	fire precautions and fire fighting	MoMu0, 1
6.01.6	damage control and repair	MoMu0, 1
6.01.7	heavy weather - crew routines, boat handling, drogues	MoMu0, 1
6.01.8	man overboard prevention and recovery	MoMu0, 1
6.01.9	giving assistance to other craft	MoMu0, 1
6.01.10	hypothermia	MoMu0, 1
6.01.11	cpr and first aid	MoMu0, 1
6.01.12	SAR systems	MoMu0, 1
6.01.13	using communications equipment (VHF, GMDSS, satcomms, etc.)	MoMu0, 1
6.01.14	weather forecasting	MoMu0, 1
	(c) ORC 2002	

Advert t/c

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# Advert t/c

# OFFSHORE SPECIAL REGULATIONS

## APPENDIX A part I

### Minimum Specifications for Yachtsmen's Liferrafts valid for liferafts purchased prior to 1/2003

*Appendix A does not cover liferafts intended for category 0 races*

**See Appendix A part 2 printed separately for the Minimum Specifications to apply to liferafts purchased from 1/2003**

#### 1.0 General design

Liferaft(s) capable of carrying the whole crew shall meet the following requirements:

- a) Stowage - see Special Regulation 4.20.2
- b) Must be designed and used solely for saving life at sea
- c) The liferaft shall be so constructed that, when fully inflated and floating with the cover uppermost, it shall be stable in a seaway
- d) The construction of the liferaft shall include a canopy or cover which shall when specified by the national Authority or Notice of Race automatically be set in place when the liferaft is inflated. This cover shall be capable of protecting the occupants against injury from exposure, and means shall be provided for collecting rain. The cover of the liferaft shall be of a highly visible colour.
- e) The liferaft shall be fitted with a painter line and shall have a lifeline becketed round the outside. A lifeline shall also be fitted round the inside of the liferaft
- f) The liferaft shall be capable of being readily righted by one person if it inflates in an inverted position
- g) The liferaft shall be fitted at each opening with efficient means to enable persons in the water to climb on board
- h) The liferaft shall be contained in a valise or other container so constructed as to be capable of withstanding hard wear under conditions met with at sea. The liferaft in its valise or other container shall be inherently buoyant
- i) The buoyancy of the liferaft shall be so arranged as to achieve a division into an even number of separate compartments, half of which shall be capable of supporting out of the water the number of persons which the liferaft is fit to accommodate, without reducing the total supporting area
- j) The number of persons which an inflatable liferaft shall be permitted to accommodate shall be equal to:-
  - i) the greatest whole number obtained by dividing by .096 the volume, measured in cubic metres of the main buoyancy tubes (which for this purpose shall include neither the arches nor the thwarts if fitted) when inflated, or
  - ii) the greatest whole number obtained by dividing by 3720 the area measured in square centimetres of the floor (which for this purpose may include the thwart or thwarts if fitted) of the liferaft when inflated whichever number shall be the less
- k) The floor of the liferaft shall be waterproof and when specified by the National Authority or Notice of Race shall be capable of being sufficiently insulated against the cold either:-
  - i) by means of one or more compartments which the occupants can inflate if they so desire, or which inflate automatically and can be deflated and re-inflated by the occupants; or
  - ii) by other equally efficient means not dependent on inflation

#### 2.0 Equipment

- a) one buoyant rescue quito, attached to at least 30 metres of buoyant line
- b) one safety knife and one bailer
- c) two sponges
- d) one sea anchor or drogue permanently attached to the liferaft (the NMI pattern with anti-tangle lines is recommended)
- e) two paddles
- f) one repair outfit capable of repairing punctures in buoyancy compartments
- g) one topping-up pump or bellows
- h) one waterproof electric torch
- i) three hand-held red distress flare signals in accordance with SOLAS regulation 36
- j) six anti-seasickness tablets for each person which the liferaft is deemed fit to accommodate
- k) instructions on a plastic sheet on how to survive in the liferaft
- l) the liferaft shall be inflated by a gas which is not injurious to the occupants and the inflation shall take place automatically either on the pulling of a line or by some other equally simple and efficient method. Means shall be provided whereby a topping-up pump or bellows may be used to maintain pressure

#### 3.0 Marking of liferafts

3.1 Each liferaft shall be clearly marked with the yacht's name or sail number of identification code on:-

- a) the canopy
- b) the bottom
- c) the valise or container
- d) the certificate

3.2 Numbers and letters on the liferaft should be as large as possible and in a strongly contrasting colour. Marine grade retro-reflective material shall be appropriately fitted to every raft.

# OFFSHORE SPECIAL REGULATIONS

## APPENDIX B

### A Guide to ISO and other standards

#### Application and Development Policy

Whenever possible a relevant ISO Standard, CEN Norm, SOLAS regulation or other internationally-recognised standard is called up by Special Regulations. Changes and developments in international standards are reviewed by the Special Regulations sub Committee and may replace part of Special Regulations. Significant changes will when possible affect new yachts and/or new equipment only.

#### ISO

ISO, the International Organization for Standardization is a world-wide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO Technical Committees. Each member body interested in a subject for which a Technical Committee has been established has the right to be represented on that committee. International organisations governmental and non-governmental, including eg ISAF, take part in the work. Copies of International Standards may be obtained from a national standards body.

The following International Standards (or Draft Standards) are mentioned in Special Regulations:-

ISO standard	Subject	SR
12217-2	assessment of stability and buoyancy (monohulls)	3.04.3
12217-7	as above, multihulls	3.05
11812	watertight & quick draining cockpits	3.09
15085	guardlines (lifelines) trampolines, nets, stanchions, hooking points	3.14, 3.15
8729	marine radar reflectors	4.10
9650	liferrafts	Appendix A Part 2
12401**	deck safety harness	5.02
12215	hull construction standards – in preparation	

#### CEN

CEN standards (Norms) are developed in Europe by CEN (European Committee for Standardization – Comité Européen de Normalisation) which publishes ENs (European Norms) and which works closely with ISO. In Special Regulations the following are mentioned:-

EN standard	Subject	SR
394, 399	lifejacket accessories	5.01
396	lifejackets	5.01
1095	deck safety harness	5.02
1913-1-3	immersion suits	5.07

# OFFSHORE SPECIAL REGULATIONS

## ABS

ABS Guide for Building and Classing Offshore Yachts. This Guide to scantlings (construction standards) was originally published by ABS (American Bureau of Shipping) in co-operation with the Offshore Racing Council. A plan approval service formerly offered by ABS has been discontinued. However, copies of the Guide are available from the ISAF office. Designers and builders may provide written statements to confirm that they have designed and built a yacht in accordance with the Guide (see SR 3.03.1(b)). Work on ISO 12215 (which may become a new minimum standard in Special Regulations) is in progress.

## RCD

The RCD (Recreational Craft Directive) is published with the authority of the EC under which "nominating bodies" including some maritime classification societies and in the UK and Ireland, the RYA (Royal Yachting Association) and the IYA (Irish Yachting Association), may approve construction standards of yachts which may then be entitled to display a CE mark permitting sale in the EC (see SR 3.03.1(a)). Work on ISO 12215 (which may become a new minimum standard in Special Regulations) is in progress.

## SOLAS

The SOLAS (Safety of Life At Sea) Convention is published by IMO (International Maritime Organisation) at which ISAF has Consultative Status. SOLAS Chapter III, Regulation 3, 10 refers to the LSA (Life Saving Appliances) Code (published as a separate booklet) to which Special Regulations makes the following references:-

LSA Code	Subject	SR
Chapter III, 3.1, 3.2, 3.3	flares (pyrotechnics)	4.23
Chapter II, 2.2.3	lifejacket lights	5.01
Chapter IV, 4	liferafts	4.20
Chapter II, 2.3	immersion suits	5.07.1
Chapter II, 2.5	thermal protective aids	Appendix A Part 2

## Addresses

CEN Central Secretariat,  
rue de Stassart 36,  
B-1050 Brussels,  
Belgium

ISO Central Secretariat,  
1 rue de Varembé,  
Case Postale 56,  
CH-1211 Genève 20,  
Switzerland.  
email: central@isocs.iso.ch  
web site www.iso.ch,  
telephone +41 22 749 01 11,  
fax + 41 22 733 34 30

IMO International Maritime Organization,  
4 Albert Embankment,  
London EC1 7SR,  
Great Britain.  
telephone +44 207 735 7611.

# OFFSHORE SPECIAL REGULATIONS

## APPENDIX C

### STANDARD INSPECTION CARD p1 of 2

Please note that this appendix is not comprehensive but only a guide for use by Race Organisers.  
Add items as appropriate. A copy of the card should be given to the yacht in advance.

**INSPECTORS mark each item with a tick or cross in the check box. Write an additional report if necessary.  
Show to the owner and return card with report to the Race Committee as soon as possible.**

**YACHT** \_\_\_\_\_ **Sail No** \_\_\_\_\_

**Number of crew this race** \_\_\_\_\_ **Liferaft total capacity** \_\_\_\_\_

**IMPORTANT inspection is carried out only as a guide to owners. An inspector cannot limit or reduce the complete and unlimited responsibility of the owner or owner's representative.**

**"I hereby declare that I am the owner or owner's representative and that I have read and understood Special Regulations and in particular 1.02.1, 1.02.2, and 1.02.3 (owner's responsibility)"**

**Signed** \_\_\_\_\_ **Printed name** \_\_\_\_\_

**Date** \_\_\_\_\_

Please prepare your yacht as requested. This will save everyone's time! Have somebody ready on the boat who is thoroughly familiar with her and her gear (as all crew members must be). Failure to comply may result in penalty or exclusion from the race. Italic items are recommended only. The inspector may check items not listed here.

#### Below Deck

<b>on one or more berths show the following:-</b>	<b>SR</b>	<b>tick/cross</b>
all safety harness and lines _____ how many? <input type="checkbox"/>	5.02.1	<input type="checkbox"/>
coloured flags in new harness lines? _____	5.02	<input type="checkbox"/>
all safety harness lines extra _____ how many? <input type="checkbox"/>	5.02.2	<input type="checkbox"/>
all lifejackets _____ how many? <input type="checkbox"/>	5.01	<input type="checkbox"/>
foghorn _____	4.09	<input type="checkbox"/>
flashlight + spare batteries and bulbs _____	4.07.1(b)	<input type="checkbox"/>
hi-powered flashlight/spotlight + appropriate spares _____	4.07.1(a)	<input type="checkbox"/>
rigging cutters _____	4.16	<input type="checkbox"/>
first aid kit and manual _____	4.08	<input type="checkbox"/>
2 stout buckets _____	3.23	<input type="checkbox"/>
2 fire extinguishers _____	4.05	<input type="checkbox"/>
is keel-stepped mast heel restrained? _____	3.12	<input type="checkbox"/>
engine permanently installed and securely covered? _____	3.28.1	<input type="checkbox"/>
heavy-weather jib (if not rigged on deck-see below) _____	4.26.8	<input type="checkbox"/>
stowage chart with location of principal items of safety equipment _____	4.12	<input type="checkbox"/>
heavy movable objects securely fastened in place? _____	2.03.2	<input type="checkbox"/>

#### also show the following:-

valid liferaft certificate(s) _____ how many? <input type="checkbox"/> (see heading)	4.20.4	in date? <input type="checkbox"/>
rating certificate(s) (signed by owner)? <input type="checkbox"/> expiry date? _____		
radar reflector data sheet (if not 18" octahedral) declaring at least 10m2 RCS _____	4.1	<input type="checkbox"/>
charts (not solely electronic) _____	4.11	<input type="checkbox"/>

# OFFSHORE SPECIAL REGULATIONS

## STANDARD INSPECTION CARD p2 of 2

	SR	tick/cross
ABS approved plans or compliance statement from designer _____	3.03.1	<input type="checkbox"/>
ABS compliance statement from builder _____	3.03.1	<input type="checkbox"/>
406MHz EPIRB - identity number? _____ serviced? <input type="checkbox"/>	4.19	<input type="checkbox"/>
Statement(s) of training completed by how many crew? _____	6.01	<input type="checkbox"/>

### On Deck

block companionway hatch shut _____	3.08.3(b)	<input type="checkbox"/>
show retaining device connected to washboard(s) _____	3.08.4(b)(ii)	<input type="checkbox"/>
show retaining device connected to bilge pump handle(s) _____	3.23.4	<input type="checkbox"/>
"rig the storm jib (or if none, the heavy weather jib) with sheets ready for use" _____	4.26.7	<input type="checkbox"/>
rig the trysail with sheets ready for use _____	4.26.9	<input type="checkbox"/>
can trysail be set without removing mainsail from luff groove or mainsail cars from track? _____		<input type="checkbox"/>
install equipment for steering without the rudder - has it been tried? _____	4.15.1(b)	<input type="checkbox"/>
rig radar reflector at least 4.0m above the water as it would be used _____	4.1	<input type="checkbox"/>
prepare to demonstrate nav lights both main and reserve _____	3.27	<input type="checkbox"/>
fix shut cockpit lockers as if for heavy weather _____	3.02.1	<input type="checkbox"/>
can crew stay clipped on along and across deck? _____	4.04.2(b)(ii)	<input type="checkbox"/>
are lifelines taut? _____	3.14.2	<input type="checkbox"/>
show jackstays rigged for use _____	4.04	<input type="checkbox"/>
static safety lines at work stations? how many? _____	5.02.5(b)	<input type="checkbox"/>

### Man Overboard

date and place of last MoB drill? _____	6.01	<input type="checkbox"/>
how many of this crew has done MoB drill on this boat? _____	6.01	<input type="checkbox"/>

### Pyrotechnics (flares)

remove each flare from container and have laid out for inspection. _____	4.23	<input type="checkbox"/>
red hand flares -how many? _____	4.23	<input type="checkbox"/>
red parachute flares -how many? _____	4.23	<input type="checkbox"/>
white hand flares -how many? _____	4.23	<input type="checkbox"/>
orange smoke flares -how many? _____	4.23	<input type="checkbox"/>
can crew members describe ""blind"" how these flares operate? _____	4.23	<input type="checkbox"/>

### Inspector's Report to Race Committee

I inspected the above yacht on \_\_\_\_\_ (date) at \_\_\_\_\_ (place)

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Signed \_\_\_\_\_ Printed name \_\_\_\_\_

## APPENDIX D

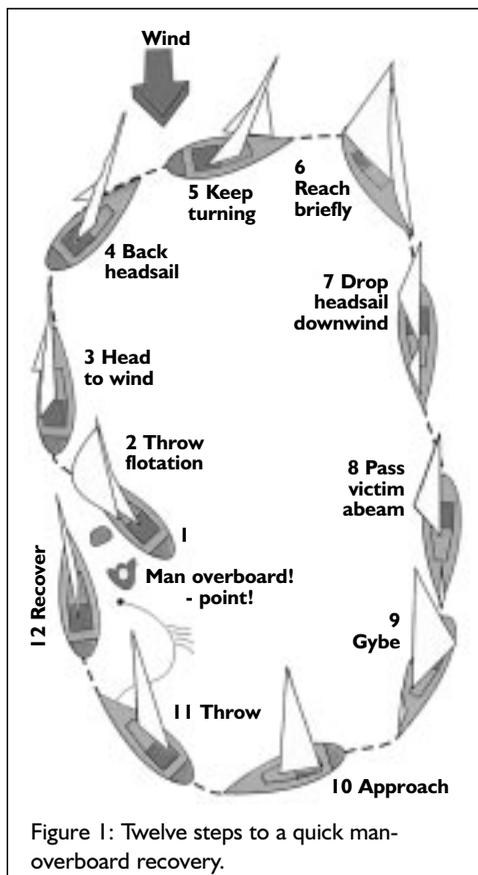
For information only  
Quickstop and Lifesling

### MAN OVERBOARD – QUICK STOP AND THE LIFE SLING (OR SEATTLE SLING)

When a crew member goes over the side recovery time is of the essence. In an effort to come up with a recovery system that is simple and lightning quick, the US Yacht Racing Union Safety at Sea Committee, the US Naval Academy Sailing Squadron, the Cruising Club of America Technical Committee and the Sailing Foundation of Seattle, Washington, joined forces to conduct extensive research and sea trials. The result of their collaboration is the “Quick-Stop” method of man-overboard recovery. The hallmark of this method is the immediate reduction of boat speed by turning to windward and then manoeuvring slowly, remaining near the victim. In most cases, this is better than reaching off, then gybing or tacking and returning on a reciprocal course.

#### QUICK-STOP

1. **Shout “man overboard”** and detail a crew member to spot and point to **the victim’s position** in the water. The spotter should not take his eyes off the victim (see Figure 1).
2. **Provide immediate flotation.** Throw buoyant objects such as cockpit cushions, life rings and so on. These objects may not only come to the aid of the victim, but will “litter the water” where he went overboard and help your spotter to keep him in view. Deployment of the pole and flag (dan buoy) requires too much time. The pole is saved to “put on top” of the victim in case the initial manoeuvre is unsuccessful.
3. **Bring boat head-to-wind** and beyond (see Figure 1).
4. **Allow headsail to back** and further slow the boat.
5. **Keep turning with headsail backed** until wind is abaft the beam.
6. **Head on beam-to-broad reach** course for two or three lengths then go nearly dead downwind.
7. **Drop the headsail** while keeping the mainsail centred (or nearly so). The jib sheets are not slacked, even during the dousing manoeuvre, to keep them inside the lifelines.
8. **Hold the downward course** until victim is abaft the beam.
9. **Gybe.**
10. **Approach the victim** on a course of **approximately 45 degrees** to 60 degrees off the wind.
11. **Establish contact** with the victim with heaving line or other device. The Naval Academy uses a “throwing sock” containing 75 feet of light floating line and a bag that can be thrown into the wind because the line is kept inside the bag and trails out as it sails to the victim.
12. **Effect recovery** over the windward side.



#### Quickstop Under Spinnaker

The same procedure is used to accommodate a spinnaker. Follow the preceding instructions. As the boat comes head-to-wind and the pole is eased to the head stay, the spinnaker halyard is lowered and the sail is gathered on the fore deck. The turn is continued through the tack and the approach phase commences.

#### Quickstop In Yaws & Ketches

Experiment with your mizzensail. During sea trials, it was found best to drop the mizzen as soon as possible during the early phases of Quick-Stop.

## OFFSHORE SPECIAL REGULATIONS

### Quickstop Using Engine

Use of the engine is not essential, although it's advisable to have it running in neutral, during Quick-Stop in case it is needed in the final approach. Check first for trailing lines!

### SHORTHANDED CREWS

When there are only two people sailing together and a man-overboard accident occurs, the remaining crew member may have difficulty in handling the recovery alone. If the victim has sustained injuries, getting him back aboard may be almost impossible. The Quick-Stop method is simple to effect by a singlehander, with only one alteration to the procedure: the addition of the "Lifesling", a floating horsecollar device that doubles as a hoisting sling. The Lifesling is attached to the boat by a length of floating line three or four times the boat's length. When a crew member falls overboard the scenario should proceed as follows:

1. A cushion or other flotation is thrown while the boat is brought IMMEDIATELY head-to-wind, slowed and stopped (Figure 2 below).

2. The Lifesling is deployed by opening the bag on the stern pulpit and dropping the sling into the water. It will trail astern and draw out the line.

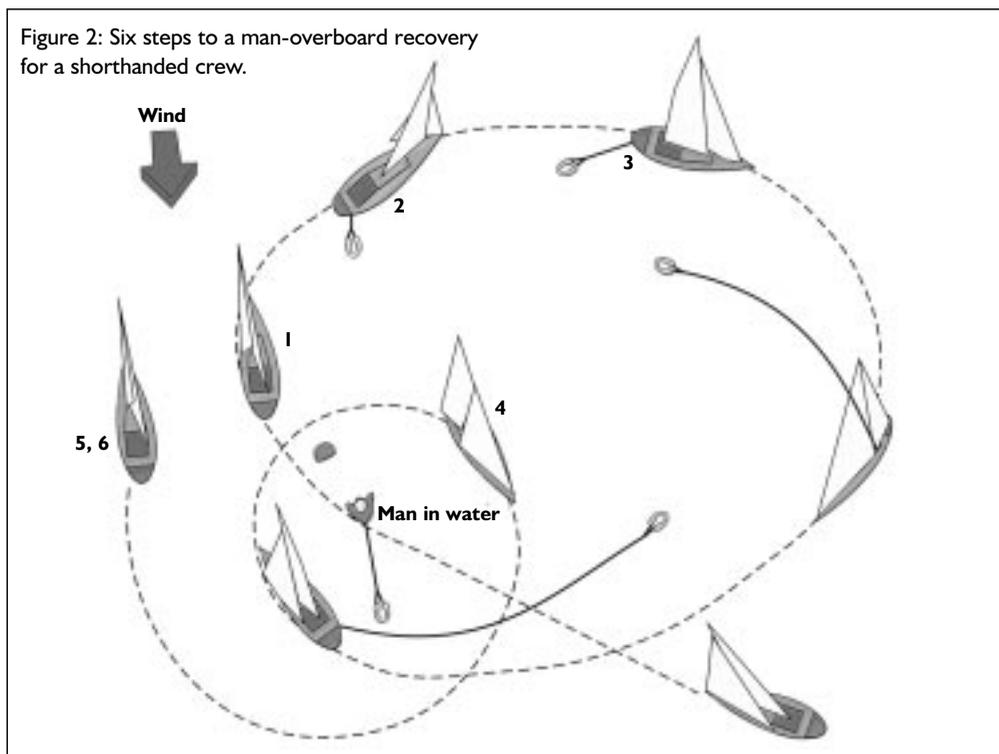
3. Once deployed, the boat is sailed in a wide circle around the victim with the line and sling trailing. The jib is allowed to back from head-to-wind, increasing the rate of turn.

4. Contact is established with the victim by the line and sling being drawn inward by the boat's circling motion. The victim places the sling over his head and under his arms.

5. Upon contact, the boat is put head-to-wind again, the headsail is dropped to the deck and the main is doused.

6. As the boat drifts slowly backward, the crew begins pulling the sling and the victim to the boat. If necessary, a cockpit winch can be used to assist in this phase, which should continue until the victim is alongside and pulled up tightly until he is suspended in the sling (so that he will not drop out). But see following page for advice on a horizontal lift which is preferable when there's a choice.

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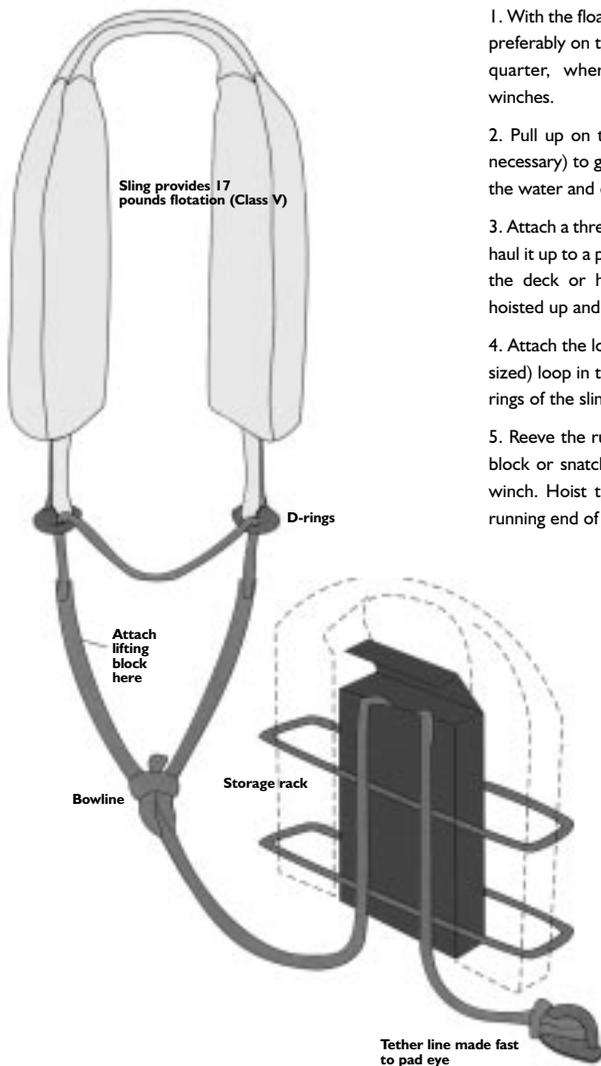
## OFFSHORE SPECIAL REGULATIONS

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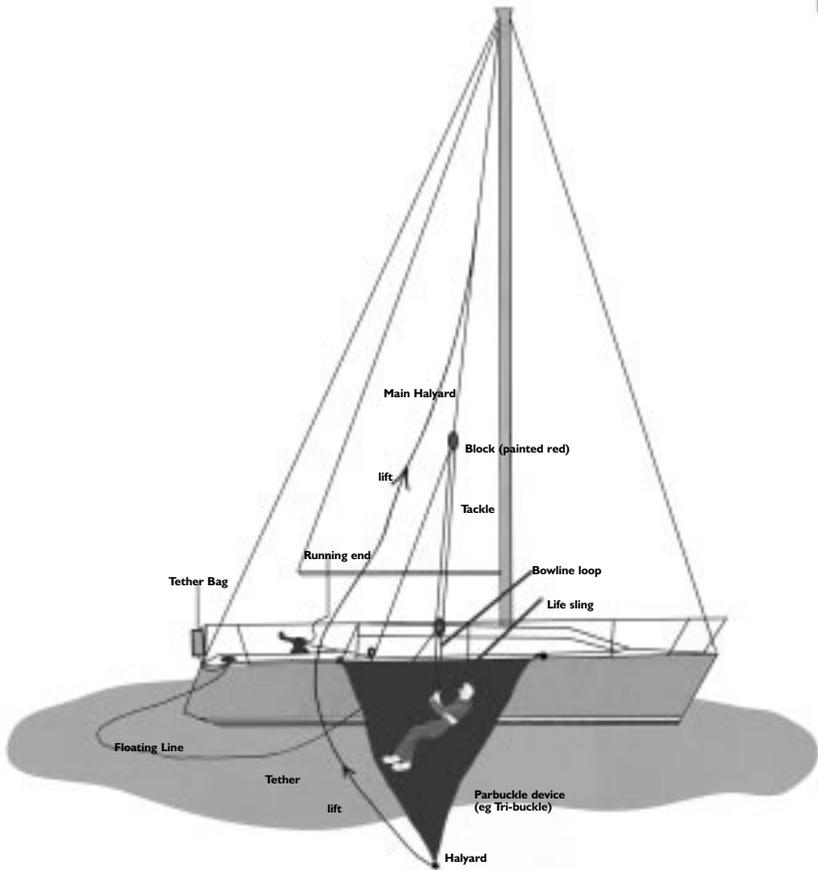
### THE HOISTING RIG

**Note:** Since the hoisting rig was developed, more evidence has emphasised the value in keeping a victim horizontal particularly after long or hypothermic immersion. A parbuckle or horizontal lift is highly desirable (see below).

1. With the floating tether line, haul the victim alongside, preferably on the windward side, from amidships to the quarter, wherever there are available cleats and winches.
2. Pull up on the tether line (with winch assistance, if necessary) to get the victim's head and shoulders out of the water and cleat it. The victim is now safe.
3. Attach a three- or four-part tackle to the main halyard, haul it up to a predetermined point, about 10 feet above the deck or high enough so that the victim can be hoisted up and over the lifelines. Cleat off the halyard.
4. Attach the lower end of the tackle to the (previously-sized) loop in the tether line that passes through the D-rings of the sling.
5. Reeve the running end of the tackle through a sheet block or snatch block on deck and put it on a cockpit winch. Hoist the victim aboard by winching it on the running end of the tackle.



# OFFSHORE SPECIAL REGULATIONS



## PARBUCKLE DEVICE

This is an alternative to the hoisting rig. A patent version is known as the Tri-buckle. Another version is rectangular, like a climbing net.

The net, or triangle of strong porous material, is clipped to the toe rail, the triangle top or net extremity clipped to a halyard extension. The casualty is manoeuvred or dragged alongside into the triangle or net then rolled onto the deck by hoisting the halyard.

Hypothermic aftershock may be minimised by this method which keeps the casualty essentially horizontal.



APPENDIX E

HYPOTHERMIA

WHAT IS IT?

A condition in which exposure to cold air and/or water lowers body core temperature. Death can result from too low a brain and heart temperature.

WHY BE CONCERNED?

Hypothermia, even mild cases, decreases crew efficiency and increases risk of costly accidents. **Proper planning against hypothermia can give a winning competitive edge.**

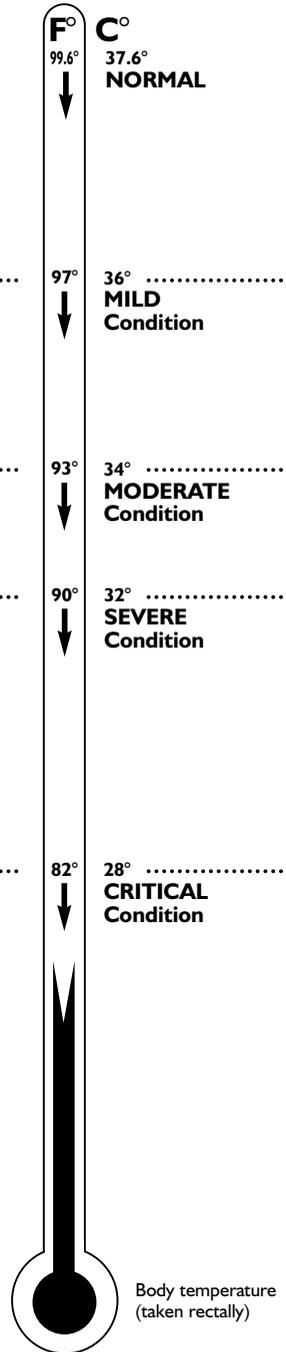
PREVENTION

- Wear warm clothing and a lifejacket/harness. Have proper foul-weather kit for all crew. Dry suits are excellent. Insulate all areas of the body, especially the high heat-loss areas: head, neck, armpits, sides of chest and groin. Keep warm and dry, but avoid sweating; wear layered clothes.
- Rotate watch frequently.
- Get plenty of rest, prevent fatigue.
- Eat and drink normally, *no alcohol*.
- Prevent dehydration; watch urine colour (drink more if colour becomes more intense).
- Avoid seasickness.
- Take into account special medical problems of crew members.
- Regularly train crew in Man Overboard recovery.
- Have two or more crew trained in CPR (Cardio-pulmonary Resuscitation).

SURVIVAL IN COLD WATER (under 75°F, 25°C)

(all UK waters)

- **If boat is in trouble**, put on dry or survival suits if carried. Radio for help; give position, number of crew, injuries, boat description. Make visual distress signals. Stay below if possible. Remain aboard until sinking is inevitable.
- **If going overboard**, launch life raft and EPIRB (Emergency Position Indicating Radio Beacon). Take grab bag, visual distress signals and waterproof hand-held VHF. Get into raft, stay out of water as water conducts heat out of the body 20 times faster than air. Remain near boat if practicable.
- **If in the water**, crew should stay together near the boat. This makes everyone easier to find, helps morale. Enter life raft, keep dry suit or survival suit on if worn.
- **If not wearing dry suit or survival suit**, make sure you wear a lifejacket, keep clothes and shoes on for some insulation and flotation. Keep hat on to protect head. Get all or as much of body out of water as soon as possible – into raft or swamped boat or onto flotsam. Avoid swimming or treading water, which increases heat loss. Minimise exposed body surface. A splashguard accessory on the lifejacket greatly improves resistance to swallowing seawater and also accommodates involuntary “gassing” when plunged into cold water.



# OFFSHORE SPECIAL REGULATIONS

## RANGES OF HYPOTHERMIA SYMPTOMS

Note: Most physical symptoms vary with each individual and may be unreliable indicators of core body temperature. Only a low temperature rectal thermometer gives reliable core temperature (the mouth cools too rapidly). In general, as body temperature falls, symptoms will increase.

### MILD CONDITIONS

(97-93°F, 36-34°C)

- Shivering, cold hands and feet
- Still alert and able to help self
- Numbness in limbs, loss of dexterity, clumsiness
- Pain from cold

### MODERATE CONDITIONS

(93-90°F, 34-32°C)

- Same as above
- Confusion, loss of time estimation and reasoning power

### SEVERE CONDITIONS

(90-82°F, 32-28°C)

- Shivering decreases or stops
- Further loss of reasoning and recall, confusion, abnormal behaviour
- Victim appears drunk; very clumsy, slurs speech, denies problem and may resist help
- Unable to help themselves
- Victim semiconscious to unconscious
- Muscular rigidity increasing

### CRITICAL CONDITIONS

(82°F, 28°C and below)

- Unconscious, may look dead
- Little or no apparent breathing
- Pulse slow and weak, or no pulse found
- Skin cold, may be bluish-grey colour
- Very rigid

## HYPOTHERMIA FIRST AID

### ALL CASES

- Keep victim horizontal
- Move victim to dry, shelter and warmth
- Allow to urinate from horizontal position
- Handle gently
- Remove wet clothes – cut off if necessary
- Apply mild heat (comfortable to your skin) to head, neck, chest and groin – use hot water bottles, warm moist towels
- Cover with blankets or sleeping bag; insulate from cold – including head and neck
- Report to Doctor by radio

### MILD CASES

- Primary task is to prevent further heat loss and allow body to rewarm itself
- Give warm, sweet drinks – *no alcohol – no caffeine*
- Apply mild heat source to stabilise temperature and/or
- Re-heat to point of perspiring
- Keep victim warm and horizontal for several hours

### MODERATE CASES

- Same as above
- Offer sips of warm liquid only if victim is fully conscious and able to swallow without difficulty – *no alcohol – no caffeine*
- Have victim checked by doctor

### SEVERE CASES

- Obtain medical advice as soon as possible using your radio
- Assist victim, but avoid jarring him – rough handling may cause cardiac arrest or ventricular fibrillation of heart
- No food or drink
- Observe for vomiting and be prepared to clear airway
- *Ignore pleas of "Leave me alone, I'm OK" victim is in serious trouble – keep continuous watch over victim*
- Lay victim down in bunk, wedge in place, elevate feet, keep immobile; no exercise
- Apply external mild heat to head, neck, chest and groin – keep temperature from dropping, but avoid too rapid a temperature rise

### CRITICAL CASES

- *Always assume the patient is revivable – hypothermic victims may look dead – don't give up – pulse very difficult to feel, breathing may have stopped*
- Handle with extreme care
- Tilt the head back to open the airway – look, listen and feel for breathing and pulse for *one to two full minutes*
- If there is any breathing or pulse, no matter how faint or slow, do not give CPR, but keep a close watch on vital sign changes
- Stabilise temperature with available heat sources, such as naked chest to back warming by other crew member (leave legs alone)
- If no breathing or pulse for one or two minutes, *begin CPR immediately. Do not give up until victim is thoroughly warm – alive or dead.*
- *Medical help imperative – hospitalisation needed*

## WARNING

- First aid for severe and critical hypothermia is to add heat to stabilise temperature only. Rapid rewarming, such as a hot shower or bath, may be fatal; it will, at least, cause complications. Allow body to rewarm itself slowly.
- Body core temperature lags behind skin temperature during rewarming. Keep victim protected for extended period after apparent full recovery or medical help arrives. *Many hours are required for full return to normal temperature even though victim says he has recovered.*
- Always assume hypothermia is present in all man overboard situations in which victim has been exposed for more than 10–15 minutes
- Victims may also be suffering from near drowning, thus needing oxygen. Observe for vomiting.
- In a helicopter rescue, protect victim – including the head – from rotor blast wind chill

# OFFSHORE SPECIAL REGULATIONS

## APPENDIX F

### THE USE OF DROGUES TO COMBAT CAPSIZING IN HEAVY BREAKING SEAS

#### DROGUES ON LIFERAFTS

Nearly all liferafts are now fitted with a special type of drogue (developed by the National Maritime Institute, now British Marine Technology, and others). They are much larger than before, slightly porous and have anti-tangle lines. With bigger ballast pockets under the raft, they are highly effective against capsizing. Tests in Iceland showed this despite the most furious weather. The secondary function of the drogue is to help limit drift. Your raft manufacturer will know whether an NMI-type drogue is fitted.

#### DROGUES ON YACHTS

Work was carried out for the RORC by the Wolfson Unit of Southampton University to see how drogues could help yachts combat capsizing in heavy breaking seas (a copy of the report and video is available from the RORC). A drogue towed astern slows a yacht down and pulls her end-on to the sea. **It was shown in the Wolfson model tests that this attitude repeatedly prevented the yacht from being slewed sideways and rolled over by a breaking wave. A drogue or sea anchor is recommended in ORC Special Regulations Category zero (monohulls) zero and one (multihulls) (SR 4.25).**

Deployment of a drogue over the stern means that heavy water will break over that part of the yacht, so all openings must be properly secured shut.

This points to Special Regulations which require eg. that yachts shall be "strongly built, watertight and particularly with regard to cabin trunks capable of withstanding solid water and knockdowns". It is mandatory that hatch boards and washboards to shut the main companionway are retained permanently by some means - typically a strong lanyard. If these vital pieces are lost or defective, then seas breaking over the stern will jet below and quickly fill the yacht.

Cockpit locker hatches need special attention; sometimes they are very large and lead into the hull. They are thus critical to the yacht's watertight integrity and it is essential that they are strongly fixed shut. Many simple latches commonly used are not sufficient in themselves and should be padlocked at sea. Hatch hinges and latch fittings should be through-bolted rather than screwed. Good seals are vital on locker lids and hatches.

The Department of Transport has specified a drogue for ships' liferafts and lifeboats; the form is practical for yachts (see diagram) and can be made by a sailmaker. Mouth diameter should be between 10% and 15% of the yacht's LWL, with the other dimensions proportional.

#### TOWING LINE

As a guide, use 10 x LOA, best adjusted to period of seas. Material: 3-strand nylon anchor warp is suitable.

#### WEIGHT ON DROGUE-END OF TOW

Important to keep drogue well submerged - ideally some 10 metres below the surface up to around 20kg. Some weight could be provided by a 10m length of chain between drogue and warp.

#### DROGUE OPERATION

The main requirement to survive capsize is that the drogue line is always held sufficiently taut to prevent the yacht yawing beam on to the sea. Try to keep the drogue in the second or third wave astern. Two drogues in tandem offer a practical method of reducing the risk of the line slackening if one drogue is tumbled in a breaking wave.

#### FIXING ON BOARD

Strong points like sheet winches essential.

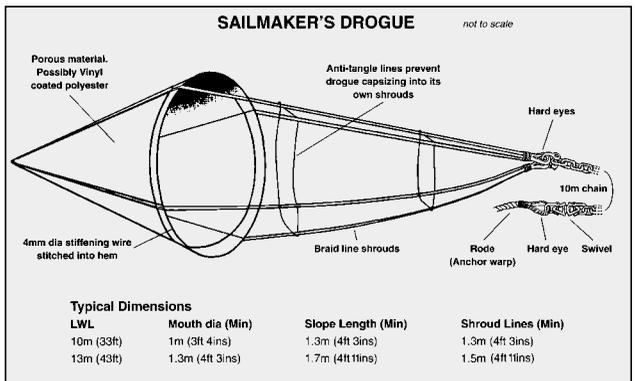
#### TENDING LINES

Periodic attention is essential to shift line to minimise localised chafe. Use anti-chafe (eg. plastic sleeving in fairleads).

#### OTHER DEVICES

The Jordan "series drogue" is a long strong warp as above with a number of small cones made of terylene (dacron) permanently stitched at intervals into the line and deployed with the cones pointing aft. The advantage is that when a breaking wave tumbles one part of the device the remainder continues to provide essential drag.

The Parachute or Para-Anchor is a large parachute-like sea anchor. Its operation is similar to that of a drogue but is very much larger and designed to be streamed from the bow - 18ft across is recommended for yachts of 35-50 ft LOA. The para-anchor like a drogue is best weighted by chain. The para-anchor is particularly recommended by some multihull authorities.



# OFFSHORE SPECIAL REGULATIONS

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## APPENDIX G – TRAINING

(Printed separately)

## APPENDIX H

### ISAF Code for the organisation of Oceanic Races

*The following Code was approved by the Council of the International Sailing Federation in November 1999*

1. Organisers of oceanic races shall consult with the SAR (Search and Rescue) authorities through whose areas a race is proposed to pass.
2. All yachts shall be equipped to standards which at least comply with the relevant level of Special Regulations as adopted by ISAF, class rules notwithstanding.
3. In accordance with Special Regulations, an adequate number of competitors on each yacht shall have survival training.
4. Races shall be conducted in compliance with the ISAF Racing Rules of Sailing and the COLREGS whenever it is appropriate for these rules and regulations to be applied.

*An Oceanic Race is defined as any offshore race over 800 miles.*

# OFFSHORE SPECIAL REGULATIONS

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This Index is intended to be a quick guide to the Regulations. It is not exhaustive.  
See also the diagrammatic guide and list of contents.

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