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World Sailing Offshore Special Regulations

Combined extract for All Race Categories

JANUARY 2022 – DECEMBER 2023

Version Draft 1.0 – 14 July 2022

With MNA Prescriptions

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https://www.sailing.org/inside-world-sailing/rules-regulations/offshore-special-regulations/

Language & Abbreviations Used

Mo – Monohull
Mu – Multihull
** – means the item applies to all types of boat in all Categories except 5 for which see Appendix B or 6 for which see Appendix C

RED TYPE indicates a significant change in 2023.

ITALIC TYPE indicates a term defined in Offshore Special Regulation 1.03.1.

UNDERLINED ITALIC TYPE indicates a term defined in the Equipment Rules of Sailing.

BOLD BLUE TYPE indicates a {state your MNA here} prescription.

BOLD Green TYPE indicates a {state your race here} prescription.

Guidance notes and recommendations have been removed from the Regulations and are available on:
https://www.sailing.org/inside-world-sailing/rules-regulations/offshore-special-regulations/

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

Administration

The Offshore Special Regulation are administered by the World Sailing Special Regulation Sub-Committee whose terms of reference (https://www.sailing.org/inside-world-sailing/rules-regulations/constitution-regulations/) are as follows:

World Sailing Regulation 6.9.8.3 - The Special Regulations Sub-Committee shall:

(a) *be responsible for the maintenance, revision and changes to the World Sailing Offshore Special Regulations governing offshore racing, under licence from ORC Ltd. Such changes shall be biennial with revised editions published in January of each even year, except that matters of an urgent nature affecting safety may be dealt with by changes to the Regulations on a shorter time scale,*

(b) *monitor developments in offshore racing relative to the standards of safety and seaworthiness.*

Any queries please email: technical@sailing.org

SECTION 1 – FUNDAMENTAL AND DEFINITIONS

1.01 Purpose and Use

** 1.01.1 The purpose of the Offshore Special Regulations (*OSR*) is to establish uniform minimum equipment, accommodation and training standards for *monohull* and *multihull* (excluding proa [asymmetrical catamaran]) boats racing offshore.

** 1.01.2 The *OSR* do not replace, but supplement, the requirements of governmental authority, Classification Society certification, the Racing Rules of Sailing (*RRS*), Equipment Rules of Sailing (ERS), class rules and Rating Systems.

** 1.01.3 Use of the *OSR* does not guarantee total safety of the boat and her crew. Particular attention is drawn to the description of *OSR* for inshore racing which includes that adequate shelter and or effective rescue is available all along the course. This is not included in more onerous *OSR* categories.

1.02 Responsibility of Person in Charge

** **1.02.1 Under *RRS* 3 the responsibility for a boat's decision to participate in a race or continue racing is hers alone. The safety of a boat and her crew is the sole and inescapable responsibility of the Person in Charge who shall do his best to ensure that the boat is fully found, thoroughly seaworthy and manned by an experienced and appropriately trained crew who are physically fit to face all weather. The person in charge shall also assign a person to take over his responsibilities in the event of his incapacitation.**

** 1.02.2 Neither the establishment of the *OSR*, nor their use by Organizing Authorities, nor the inspection of a boat under the *OSR* in any way limits or reduces the complete and unlimited responsibility of the Person in Charge.

** 1.02.3 By participating in a race conducted under the *OSR*, the person in charge, each competitor and boat owner agrees to reasonably cooperate with the Organizing Authority and World Sailing in the development of an independent incident report as specified in *OSR* 2.02.

1.03 Definitions, Abbreviations, Word Usage

** 1.03.1 **Table 1 – Definitions of Terms used in this document**

Abbreviation	Description
#	Pound force (lbf)
ABS	American Bureau of Shipping
AIS	Automatic Identification Systems
Coaming	The part of the cockpit, including the transverse after limit, over which water would run when the boat is floating level and the cockpit is filled to overflowing
COLREGS	International Regulations for Preventing Collisions at Sea
Contained Cockpit	A cockpit where the combined area open aft to the sea is less than 50% maximum cockpit depth x maximum cockpit width
Crewmember	Every person on board
DSC	Digital Selective Calling
EN	European Norm
EPIRB	Emergency Position-Indicating Radio Beacon
ERS	World Sailing - Equipment Rules of Sailing
First Launch	Month & year of the first launching when the individual boat, was completed and equipped for sailing
GMDSS	Global Maritime Distress & Safety System

GPS	Global Positioning System
Hatch	The term hatch includes the entire hatch assembly including the lid or cover as part of that assembly
HMPE	High Modulus Polyethylene (Dyneema®/Spectra® or equivalent)
IBRD	International Beacon Registration Database
IMO	International Maritime Organisation
ISAF	International Sailing Federation – (now World Sailing)
ISO	International Standard Organization or International Organization for Standardization
Jackstay	A *securely fastened* webbing or rope which permits a *crewmember* to move from one part of the boat to another without having to unclip a safety harness *tether*
L_H	Hull Length as defined by the ERS
Lifeline	Rope or wire line rigged as guardrail/guardline around the deck
LSA	*IMO* International Life-Saving Appliance Code
L_{WL}	(Length of) loaded *waterline*
Moveable Ballast	Material carried for the sole purpose of increasing weight and/or influencing stability and/or trim and which may be moved transversely but not varied in weight while a boat is racing
ORC	Offshore Racing Congress (formerly Offshore Racing Council)
OSR	Offshore Special Regulation(s)
Permanently Installed	The item is effectively built-in by e.g. bolting, welding, glassing etc. and may not be removed for or during racing
PLB	Personal Locator Beacon
Rode	Rope, chain, or a combination of both, which is used to connect an anchor to the boat
RRS	World Sailing – Racing Rules of Sailing
Securely Fastened	Held strongly in place by a method (e.g. rope lashings, wing nuts) which will safely retain the fastened object in severe conditions including a 180° capsize and allows for the item to be removed and replaced during racing
SOLAS	Safety of Life at Sea Convention
STCW	Standards of Training, Certification and Watchkeeping for Seafarers
SSS	The Safety and Stability Screening numeral
STIX	ISO 12217-2 Stability Index
Tether	A safety line used to connect a safety harness to a strong point or *Jackstay*
Variable Ballast	Water carried for the sole purpose of influencing stability and/or trim and which may be varied in weight and/or moved while a boat is racing.
World Sailing	formerly the International Sailing Federation or *ISAF*
WS	World Sailing

** 1.03.2 The words "shall" and "must" are mandatory, and "should" and "may" are permissive.

SECTION 2 – APPLICATION & GENERAL REQUIREMENTS

2.01 Categories of Events

** Organizing Authorities shall select from one of the following categories and may modify the *OSR* to suit local conditions.

2.01.1 Category 0

MoMu0 Trans-oceanic races, including races which pass through areas in which air or sea temperatures are likely to be less than 5°C (41°F) other than temporarily, where boats 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.

2.01.2 Category 1

MoMu1 Races of long distance and well offshore, where boats 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.

2.01.3 Category 2

MoMu2 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 boats.

2.01.4 Category 3

MoMu3 Races across open water, most of which is relatively protected or close to shorelines.

2.01.5 Category 4

MoMu4 Short races, close to shore in relatively warm or protected waters normally held in daylight.

2.01.6 Special Regulations – for Inshore Racing

Short races, close to shore in relatively warm and protected waters where adequate shelter and/or effective rescue is available all along the course, held in daylight only (refer to Appendix B).

2.01.7 Special Regulations – for Inshore Dinghy Racing

Short races in boats that may not be self-sufficient, with rescue boats available all along the course, held in daylight only (refer to Appendix C).

2.02 Incident Reporting

** The Organizing Authority of a race will establish whether any incidents occurred, which if reported would likely be relevant to evolving the Offshore Special Regulations, the plan review process, or in increasing safety. The Organizing Authority will follow any guidelines issued by *WS* concerning incident reporting.

2.03 Inspection

** A boat may be inspected at any time. If she fails to comply with the *OSR* her entry may be rejected, or she will be subject to protest.

2.04 General Requirements

** 2.04.1 All equipment required by *OSR* shall:

** a) function properly,

** b) be regularly checked, cleaned and serviced,

** c) if it has an expiry date, it will not have exceeded its expiry date whilst racing,

** d) when not in use be stowed in conditions in which deterioration is minimised,

** e) be readily accessible, and

** f) be of a type, size and capacity suitable and adequate for the intended use and size of the boat.

** 2.04.2 Heavy items shall be *permanently installed* or *securely fastened.*

SECTION 3 – STRUCTURAL FEATURES, STABILITY, FIXED EQUIPMENT

A boat shall be/have:

3.01 Strength of Build and Rig

** 3.01.1 Properly rigged, fully seaworthy and shall meet the *OSR.*

** 3.01.2 Equipped with shrouds and at least one forestay that shall remain connected to the mast and the boat while racing (not applicable to boats with free-standing masts).

** 3.01.3 The forestay referenced above shall be sized and connected in a way that ensures it is capable of withstanding the full sailing loads independent of any headsail luff load capacity.

3.02 Watertight and Structural Integrity of a Boat

** 3.02.1 Essentially watertight and all openings shall be capable of being immediately secured. Centreboard, daggerboard trunks and the like shall not open into the interior of a hull except via a watertight maintenance *hatch* with the opening entirely above the *waterline*.

Mo0,1,2 3.02.2 Structural Inspection – Consult the owner's manual for any instructions for keel bolt checking and re-tightening. The following inspection to be conducted by a qualified person externally with the boat out of the water. Check that there are no visible stress cracks particularly around the keel, hull/keel attachment, hull appendages and other stress points, inside the hull, backing plates, bolting arrangements and keel floors. (See Appendix L – Model Keel and Rudder Inspection Procedure).

Mo0,1,2 3.02.3 Evidence of a structural inspection in accordance with 3.02.2 within 24 months before the start of the race or after a grounding whichever is the later.

Mo3 3.02.4 At a haul-out within 2 years prior to the event, the owner or his/her representative shall inspect the integrity of the keel and rudder following the recommendations in Appendix L.

Mo0,1,2,3 3.02.5 Inspection after Grounding – an appropriately qualified person shall conduct an internal and external inspection after each unintentional grounding.

3.03 Hull Construction Standards (Scantlings)

Mo0,1,2 3.03.1 A *monohull* with a *series date* after 2009

Mo0,1,2 a) of less than 24 m (78'-9") L_H shall have:

Mo0,1,2 i been designed, built and maintained in accordance with the requirements of *ISO* 12215 Category A, and

Mo0,1,2 ii have a *WS/ISAF* building plan review certificate issued from a notified body recognized by *WS*, unless higher classification has been obtained from a Classification Society recognised by *WS*. *WS* will publish a list of waived plan review certificates.

Mo0,1,2 b) of 24 m (78'-9") L_H and greater shall have been designed, built and maintained in accordance with the requirements of a Classification Society recognized by *WS,*

Mo0,1,2 c) have a builder's declaration signed and dated by the builder to confirm the boat is built in accordance with the reviewed plans. In cases when a builder no longer exists, an Organizing Authority or class rules may accept a signed statement by a naval architect or other person familiar with the requirements of above in lieu of the builder's declaration, and

Mo0,1,2 d) have an additional *WS/ISAF* certificate of building plan review in accordance with a) or b), and c) above for any significant repair of modification to the hull, deck, coachroof, keel or appendages.

MoMu0,1,2 3.03.2 A *monohull* with *series date* between 1987 and 2010, and all *multihulls*, shall have been designed, built, maintained, modified or repaired in accordance with the requirements of:

Mo0,1,2 a) *OSR* 3.03.1, or

Mo0,1,2 b) the *ABS* Guide for Building and Classing Offshore Yachts and have on board either an *ABS* certificate of plan approval, or written statements signed by the designer and builder confirming that they have respectively designed and built the boat in accordance with the *ABS* Guide, or

MoMu0,1,2 c) the EC Recreational Craft Directive for Category A having obtained the CE mark, or

MoMu0,1,2 d) *ISO* 12215 Category A, with written statements signed by the designer and builder confirming that they have respectively designed and built the boat in accordance with the *ISO* standard, and

MoMu0,1,2 e) have written statements or approvals in accordance with a), or b) or c) and d) above for all significant repairs or modifications to the hull, deck, coach roof, keel or appendages, on board, except

MoMu0,1,2 f) that an Organizing Authority or class rules may accept, when that described in a), b), c), d) or e) above is not available, the signed statement by a naval architect or other person familiar with the standards listed above that the boat fulfils these requirements.

3.04 Stability – Monohulls

Mo0,1,2,3 3.04.1 * The latest effective version of *ISO* 12217-2 should be used unless the boat was already designed to a previous version.

Mo0,1,2,3 3.04.2 Where compliance in accordance with *OSR* 3.04.1 cannot be demonstrated, a boat shall be able to demonstrate either:

Mo0,1,2,3 **Table 2 – STIX, AVS and m*A_{GZ} Requirements**

Mo0,1,2,3 a)

Race Category	0,1,2	3
minimum *ISO* 12217-2 Stability Index (STIX)	32	23
minimum *ISO* 12217-2 Angle of Vanishing Stability (AVS)	130-0.002*m	130-0.005*m
but always >=	100°	95°
a minimum righting energy m*A_{GZ} (where A_{GZ} is the positive area under the righting lever curve in the minimum operating condition, expressed in kg metre degrees from upright to AVS)	172000	57000

Mo0,1,2,3 or

Mo0,1,2,3 **Table 3 – ORC Stability Index or SSS Requirements**

Mo0,1,2,3 b)

Race Category	0	1	2	3
minimum Stability Index in *ORC* Rating System, or	120	115	110	103
minimum IRC Safety and Stability Screening numeral (SSS) Base value	35		28	15

Mo0 3.04.3 A boat shall be capable of self-righting from an inverted position with or without reasonable intervention from the crew and independent of the condition of the rig.

3.05 Stability and Flotation – Multihulls

Mu0,1,2,3,4 3.05.1 Watertight bulkheads and compartments (which may include *permanently installed* flotation material) in each hull, to ensure that the boat is effectively unsinkable and capable of floating in a stable position with at least half the length of one hull flooded (see *OSR* 3.13.2).

Mu0,1,2,3,4 3.05.2 If *first launched* after 1998, a boat shall have transverse watertight bulkheads at intervals of not more than 4 m (13'-3") in every hull without accommodations.

Mu0,1,2,3,4 3.05.3 Designed and built to resist capsize.

3.06 Exits – Monohulls

Mo0,1,2,3,4 3.06.1 If the *series date* is after 1994 and L_H is 8.5 m (28') and greater, a boat shall have at least two exits. One exit shall be located forward of the foremost mast except where structural features prevent its installation.

Mo0,1,2,3,4 3.06.2 If *first launched* after 2013, the minimum clear *hatch* openings shall be:

Mo0,1,2,3,4 a) a circular *hatch* with diameter 450 mm (18"), or

Mo0,1,2,3,4 b) any other shape with minimum dimension of 380 mm (15″) and minimum area of 0.18 m² (1.9 ft²) (see figure 1).

Mo0,1,2,3,4

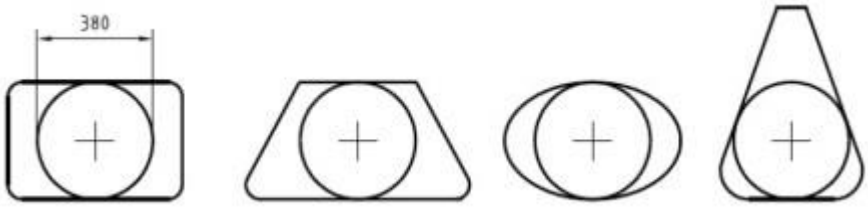

Figure 1 – Measurements of Minimum Clear Opening

3.07 Exits and Escape Hatches – Multihulls

3.07.1 Exits

Mu0,1,2,3 a) At least two exits in each hull which contains accommodations.

Mu4 b) If 8 m (26′-3″) L_H and greater, at least two exits in each hull which contains accommodations.

3.07.2 Escape Hatches, Underside Clipping Points & Handholds

Mu0,1,2,3,4 a) If 12 m (39′-4″) L_H and greater each hull which contains accommodation shall have:

Mu0,1,2,3,4 i an escape *hatch* for access to and from the hull in the event of an inversion,

Mu0,1,2,3,4 ii if *first launched* after 2002, a minimum clearance diameter through each escape *hatch* of 450 mm (18″) or when an escape *hatch* is not circular, sufficient clearance to allow a *crewmember* to pass through fully clothed,

Mu0,1,2,3,4 iii each escape *hatch* above the *waterline* when the boat is inverted,

Mu0,1,2,3,4 iv if *first launched* after 2000, each escape *hatch* to be at or near the midships station,

Mu0,1,2,3,4 v if a catamaran *first launched* after 2002, each escape *hatch* to be on the side nearest the vessel's central axis.

Mu0,1,2,3,4 b) if a trimaran *first launched* after 2002 with L_H 12 m (39′-4″) and greater, at least two escape *hatches* in compliance with the dimensions in *OSR* 3.07.2 a) ii,

Mu0,1 c) if a trimaran *first launched* after 2002 with L_H less than 12 m (39′-4″), at least one escape *hatch* in compliance with the dimensions in *OSR* 3.07.2 a) ii,

Mu0,1,2,3,4 d) each escape *hatch* shall have been opened both from inside and outside within 6 months prior to the race,

Mu0,1,2,3,4 e) appropriate handholds/clipping points on the underside sufficient for all *crewmembers* (on a trimaran these shall be around the central hull),

Mu0,1,2,3,4 f) a catamaran *first launched* after 2002, with a central nacelle, shall have on the underside around the central nacelle handholds of sufficient capacity to enable *crewmembers* to hold on and/or clip on securely.

3.07.3 Escape Hatch Alternatives

Mu2,3,4

Mu2,3,4 If a boat has L_H less than 12 m (39′-4″) it shall have escape *hatches* in compliance with *OSR* 3.07.2 a), b) and c) or:

Mu2,3,4 a) in each hull which contains accommodation, 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", and

Mu2,3,4 b) tools suitable for cutting the emergency *hatch*, ready for instant use, adjacent to the cutting site. Each tool shall be secured to the vessel by a lanyard.

3.08 Hatches & Companionways

** 3.08.1 *Hatch* covers forward of the maximum beam station shall not open toward the interior of the boat, except *hatches* in the side of a coachroof or ports having an area of less than 0.071 m² (110 in²).

** 3.08.2 A *hatch*, including a *hatch* over a locker shall be:

**		a) permanently attached and capable of being firmly shut immediately and remaining firmly shut in a 180° capsize,
Mo0,1,2,3,4		b) above the water when the boat is heeled 90°.
Mo0,1,2,3,4		A boat may have a maximum of two *hatches* on each side of centerline that do not conform to the requirement in b), provided that the opening of each is less than 0.071 m² (110 in²).
**	3.08.3	*Hatches* not conforming with *OSR* 3.08.1 and *OSR* 3.08.2 shall be clearly labelled and used in accordance with the following instruction "NOT TO BE OPENED AT SEA".
**	3.08.4	Companionway *hatches*:
**		a) fitted with a strong securing arrangement which shall be operable from the exterior and interior even when the boat is inverted,
**		b) blocking devices:
**		i capable of being retained in position with the *hatch* open or shut,
**		ii secured to the boat (e.g. by lanyard) for the duration of the race, and
**		iii permit exit in the event of inversion.
Mo0,1,2,3,4	3.08.5	If a *monohull* with cockpit(s) that is/are not *contained cockpit(s)* a boat shall have:
Mo0,1,2,3,4		a) a companionway sill that does not extend below the local sheerline, or
Mo0,1,2,3,4		b) a companionway in full compliance with *ISO* 11812 category A.
Mo0,1,2,3,4	3.08.6	If a *monohull* with *contained cockpit(s)* where the companionway extends below the local sheerline, a boat shall have panels capable of blocking the companionway up to the level of the local sheerline whilst giving access to the interior.
Mu0,1,2,3,4	3.08.7	If a *multihull* with a companionway *hatch* extending below the local sheerline a boat shall either:
Mu0,1,2,3,4		a) have a minimum sill height of 300 mm (12") and be capable of being blocked off up to the level of the local sheerline whilst giving access to the interior with the blocking device(s) in place, or
Mu0,1,2,3		b) be in compliance with *ISO* 11812 to design category A.
Mu4		c) be in compliance with *ISO* 11812 to design category B.
	3.09	**Cockpits**
	3.09.1	**General**
**		a) cockpits shall self-drain quickly by gravity at all angles of heel and are permanently incorporated as an integral part of the boat,
**		b) a cockpit sole shall be at least 2% L_{WL} above the *waterline* (or in IMS boats with *first launch* before 2003, at least 2% L above the *waterline*), and
**		c) a bow, lateral, central, or stern well is a cockpit for the purposes of *OSR* 3.09.
	3.09.2	**Cockpit Volume**
**		The maximum combined volume below lowest *coamings* of all *contained cockpits* shall be:
MoMu0,1		a) *series date* before April 1992: 6% (L_{WL} x maximum beam x freeboard abreast the cockpit),
MoMu2,3,4		b) *series date* before April 1992: 9% (L_{WL} x maximum beam x freeboard abreast the cockpit),
**		c) *series date* after March 1992 as above for the appropriate category except that "lowest *coamings*" shall not include any aft of the FA station (the transverse station at which the upper corner of the transom meets the sheerline) and no extension of a cockpit aft of the working deck shall be included in calculation of cockpit volume.
	3.09.3	**Cockpit Drains**
**		Cockpit drain cross section area of unobstructed openings (after allowance for screens if fitted) shall be at least that of:
**		a) if less than 8.5 m (28') L_H: 2 x 25 mm (1") diameter or equivalent,
**		b) if 8.5 m (28') L_H or greater: 4 x 20 mm (3/4") diameter or equivalent.

3.10 Sea Cocks or Valves

** *Permanently installed* sea cocks or valves on all through-hull openings below the *waterline* except for integral deck scuppers and instrument through-hulls.

3.11 Sheet Winches

** Sheet winches mounted in such a way that an operator is not required to be substantially below deck.

3.12 Mast Step

** The heel of a keel stepped mast *securely fastened* to the mast step or adjoining structure.

3.13 Watertight Bulkheads

Mo0Mu** 3.13.1 Either a watertight "crash" bulkhead within 15% of L_H from the bow and abaft the forward end of L_{WL}, or *permanently installed* closed-cell foam buoyancy effectively filling the forward 30% L_H of the hull.

Mo0Mu** 3.13.2 Any required watertight bulkhead to be strongly built to take a full head of water pressure without allowing any leakage into the adjacent compartment.

Mo0 3.13.3 At least two watertight transverse main bulkheads in addition to any bulkheads positioned within the forward and aft 15% of L_H.

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* in every required watertight bulkhead (except a "crash" bulkhead). The access *hatch* shall have means of watertight closure permanently attached to the main panel, or lid, or cover of the *hatch*. The closure shall not require tools to operate.

3.14 Pulpits, Stanchions, Lifelines

3.14.1 General

** The perimeter of the deck surrounded by system of *lifelines* and pulpits as follows:

** a) continuous *lifelines* fixed only at (or near) the bow and stern. However, a gate on each side of a boat is permitted. Except at its end fittings and at gates, the movement of a *lifeline* in a fore-and-aft direction shall not be constrained. Temporary sleeving shall not modify tension in the *lifeline*,

** b) minimum heights of *lifelines* and pulpit rails above the working deck and vertical openings:

** i upper: 600 mm (24"),

** ii intermediate: 230 mm (9"),

** iii vertical opening: no greater than 380 mm (15") except that on a boat with a *series date* before 1993 where it shall be no greater than 560 mm (22"),

MoMu3,4 iv a boat less than 8.5 m (28') L_H may use a single *lifeline* system with a height between 450 mm (18") and 560 mm (22").

** c) *lifelines* permanently supported at intervals of not more than 2.2 m (7'-2 1/2") and shall not pass outboard of supporting stanchions,

** d) pulpit and stanchion bases *permanently installed* with pulpits and stanchions mechanically retained in their bases,

** e) the outside of pulpit and stanchion base tubes no further inboard from the edge of the working deck than 5% of maximum beam or 150 mm (6"), whichever is greater, nor further outboard than the edge of the working deck,

** f) stanchions straight and vertical except that:

** i within the first 50 mm (2") from the deck, stanchions shall not be displaced horizontally from the point at which they emerge from the deck or stanchion base by more than 10 mm (3/8"),

** ii stanchions may be angled to not more than 10° from vertical at any point above 50 mm (2") from the deck.

** g) a bow pulpit may be open provided the opening between the pulpit and any part of the boat does not exceed 360 mm (14″),

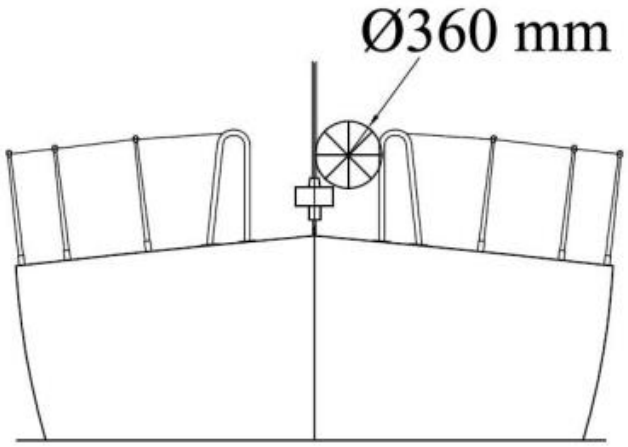

Figure 2 – Diagram Showing Pulpit Opening

** h) *lifelines* may terminate at or pass through adequately braced stanchions set inside and overlapping the bow pulpit,

** i) when a deflecting force of 4 kg (8.8 #) is applied to a *lifeline* at the mid-point of the longest span between supports that are aft of the mast, the deflection shall not exceed:

** i 50 mm (2″) for an upper or single *lifeline,*

** ii 120 mm (4 ¾″) for an intermediate *lifeline.*

3.14.2 Special Requirements for Pulpits, Stanchions, Lifelines on Multihulls

Mu0,1,2,3,4 When on a boat it is impractical to precisely follow *OSR* regarding pulpits, stanchions, *lifelines*, the regulations for monohulls shall be followed as closely as possible.

3.14.3 Lifeline Specifications

Mo0,1,2,3 a) *lifelines* of stranded stainless steel wire,

Mo4Mu** b) *lifelines* of either:

Mo4Mu** i stranded stainless steel wire, or

Mo4Mu** ii *HMPE*,

** c) The minimum diameter is specified in table 4 below,

** d) Stainless steel *lifelines* shall be uncoated and used without close-fitting sleeving, however, temporary sleeving may be fitted provided it is regularly removed for inspection,

** e) A lanyard of synthetic rope may be used to secure *lifelines* provided the gap it closes does not exceed 100 mm (4″). This lanyard shall be replaced annually,

** f) All components of the *lifeline* enclosure system shall have a breaking strength no less than the *lifeline*,

Mo4Mu** g) When *HMPE* is used, it shall be protected from chafe and spliced in accordance with the manufacturer's recommended procedures.

**

Table 4 – Lifeline Diameter Requirements

L_H	Wire Min. *lifeline* diameter	*HMPE* rope (Single braid) min. *lifeline* diameter	*HMPE* Core (Braid on braid) min. *lifeline* diameter
under 8.5 m (28′)	3 mm (1/8″)	4 mm (5/32″)	4 mm (5/32″)
8.5m – 13 m	4 mm (5/32″)	5 mm (3/16″)	5 mm (3/16″)
over 13 m (42′ 8″)	5 mm (3/16″)	5 mm (3/16″)	5 mm (3/16″)

3.15 Multihull Nets or Trampolines

3.15.1 General

Mu0,1,2,3,4 The words "net" and "trampoline" are interchangeable. A net shall be:

Mu0,1,2,3,4 a) essentially horizontal,

Mu0,1,2,3,4 b) made from durable woven webbing, water permeable fabric, or mesh with openings not larger than 5 cm (2″) in any dimension. Attachment points shall be planned to avoid chafe. The junction between a net and a boat shall present no risk of foot trapping,

Mu0,1,2,3,4 c) solidly fixed at regular intervals on transverse and longitudinal support lines and shall be fine-stitched to a bolt rope, and

Mu0,1,2,3,4 d) able to carry the full weight of the crew either in normal working conditions at sea or in case of capsize when the boat is inverted.

3.15.2 Trimarans with Double Crossbeams

Mu0,1,2,3,4 A trimaran with double crossbeams shall have nets on each side covering:

Mu0,1,2,3,4 a) the area formed by the crossbeams, central hull and outriggers,

Mu0,1,2,3,4 b) the triangles formed by the aft end of the central pulpit, the mid-point of each forward crossbeam, and the intersection of the crossbeam and the central hull,

Mu0,1,2,3,4 c) 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 and the central hull, except that:

Mu0,1,2,3,4 d) *OSR* 3.15.2(c) is not a requirement when cockpit *coamings* and/or *lifelines* are present which comply with the minimum height requirements in *OSR* 3.14.

3.15.3 Trimarans with Single Crossbeams

Mu0,1,2,3,4 A trimaran with a single crossbeam shall have nets between the central hull and each outrigger on each side between two straight lines from the intersection of the crossbeam and 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).

3.16 Catamarans

Mu0,1,2,3,4 A catamaran shall have nets covering the area defined:

Mu0,1,2,3,4 3.16.1 laterally by the hulls, and

Mu0,1,2,3,4 3.16.2 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.

3.17 Toe Rail or Foot-Stop

Mo0,1,2,3 3.17.1 *Permanently installed* toe rail of minimum height 25 mm (1″), located as close as practicable to the stanchion bases, around the foredeck from abreast the mast.

Mo0,1,2,3 3.17.2 On a boat with *series date* before 1984, an additional *lifeline* of between 25–50 mm (1–2″) high is permitted in lieu of a toe rail

3.18 Toilet

MoMu0,1,2 3.18.1 *Permanently installed* toilet.

MoMu3,4 3.18.2 *Permanently installed* toilet or fitted bucket.

3.19 Bunks

MoMu1,2,3,4 3.19.1 *Permanently installed* bunks.

MoMu0 3.19.2 *Permanently installed* bunk for each *crewmember*.

3.20 Cooking Facilities

MoMu0,1,2,3 *Permanently installed* cooking stove, capable of being operated safely at sea, with fuel shutoff control.

3.21 Drinking Water Tanks & Drinking Water

3.21.1 Drinking Water Tanks

MoMu0 a) *permanently installed* delivery pump and water tanks dividing the water supply into at least three compartments.

MoMu1 b) *permanently installed* delivery pump and water tanks dividing the water supply into at least two compartments.

MoMu2,3 c) *permanently installed* delivery pump and water tank(s).

3.21.2 Drinking Water

MoMu0 Equipment (which may include watermakers and tanks containing water) *permanently installed* to provide at least 3 L (0.8 US Gal) of drinking water per person per day for the likely duration of the passage.

3.21.3 Emergency Drinking Water

MoMu1,2,3 a) at least 9 L (2.4 US Gal) of drinking water for emergency use in a dedicated and sealed container or container(s).

MoMu0 b) in the absence of a power driven watermaker, at least 1 L (0.26 US Gal) per person per day in at least two separate containers shall be provided for the expected duration of the voyage,

MoMu0 c) when a power-driven watermaker is on board, at least 500 mL (0.13 US Gal) per person per day in at least two separate containers shall be provided for the expected duration of the voyage,

MoMu0 d) facilities shall be provided to collect rainwater for drinking purposes including when dismasted.

3.22 Hand Holds

** Adequate hand holds fitted below deck.

3.23 Bilge Pumps and Buckets

** 3.23.1 a) two strong buckets, each with a lanyard and of at least 9 L (2.4 US Gal) capacity,

Mo0,1,2 b) two *permanently installed* manual bilge pumps, one operable from above, the other from below deck,

Mo3Mu0,1,2 c) one *permanently installed* manual bilge pump,

Mo4 d) one manual bilge pump,

Mu0,1,2,3,4 e) provision to pump out all watertight compartments (except those filled with impermeable buoyancy).

** 3.23.2 All required *permanently installed* bilge pumps shall be operable with all cockpit seats, *hatches* and companionways shut and with *permanently installed* discharge pipe(s) of sufficient capacity.

** 3.23.3 Bilge pumps shall not be connected to cockpit drains and shall not discharge into a *contained cockpit*.

** 3.23.4 Bilge pumps shall be readily accessible for maintenance and for clearing out debris.

** 3.23.5 All removable bilge pump handles retained by a lanyard.

3.24 Compass

MoMu0,1,2,3 Marine magnetic compass capable of being used as a steering compass:

** a) *Permanently installed* marine magnetic steering compass, independent of any power supply, correctly adjusted with deviation card,

MoMu0,1,2,3 b) a second compass which may be hand-held and/or electronic.

3.25 Halyards

** 3.25.1 A minimum of two halyards, each capable of hoisting a sail, on each mast.

MoMu0,1,2,3 3.25.2 No halyard shall be locked, lashed, or otherwise secured to the mast in a way that requires a person to go aloft to lower a sail in a controlled manner, except for a headsail in use with a furling device.

3.26 Bow Fairlead

Mo0 Bow fairlead, closed or closable and a cleat or securing arrangement, suitable for towing, *permanently installed*.

3.27 Navigation Lights

** 3.27.1 That conform to the International Regulations for Preventing Collisions at Sea (Part C and Technical Annex I) and shall be exhibited as required by those regulations.

** 3.27.2 Mounted above sheerline and so that they will not be masked by sails or the heeling of the boat.

MoMu0,1,2,3 3.27.3 Reserve lights having the same specifications as above, and that can be powered independently.

** 3.27.4 Spare bulbs (not required for LED).

3.28 Engines, Generators, Fuel

3.28.1 Propulsion Engines

** a) engines and associated systems installed in accordance with their manufacturers' guidelines and suitable for the size and intended use of the boat,

MoMu0,1,2,3 b) an engine which provides a minimum speed in knots of (1.8 x $\sqrt{}$ L_{WL} in metres) or ($\sqrt{}L_{WL}$ in feet),

Mo0,1,2Mu0 c) inboard engine,

Mu1,2,3 d) inboard engine, however, if less than 12.0 m (39'-4") L_H either an inboard engine, or an outboard engine together with *permanently installed* power supply systems,

Mo3 e) either an inboard or outboard engine, with associated power supply systems, all *securely fastened,*

** f) an inboard combustion engine shall have a *permanently installed* exhaust, cooling system, fuel supply, fuel tank(s) and shall have adequate heavy weather protection,

** g) an inboard electrical engine, when fitted, shall be provided with a *permanently installed* power supply, adequate heavy weather protection and have an engine control system.

3.28.2 Generator

** If an optional generator separate from the propulsion engine is carried, it shall be installed in accordance with the manufacturer's guidelines.

3.28.3 Liquid Fuel Systems

MoMu0,1,2,3 a) all fuel tanks for storage of liquid fuels shall be rigid (but may have *permanently installed* flexible linings) and shall have a shutoff valve,

MoMu0,1,2,3 b) at the start a boat with a combustion engine shall carry sufficient fuel to meet charging requirements for the duration of the race and to motor at the above minimum speed for at least 5 hours.

3.28.4 Battery Systems

** a) batteries installed after 2011 shall be of the sealed type from which liquid electrolyte cannot escape,

** b) At the start a boat with an electric engine shall carry sufficient capacity to meet electrical requirements for the duration of the race and to motor at the above minimum speed for at least 5 hours.

MoMu0,1,2,3 c) a dedicated engine/generator starting battery when an electric starter is the only method for starting the engine and/or separate generator,

	3.29	**Communications Equipment, GPS, Radar, AIS**
MoMu1,2,3,4	3.29.1	A hand-held marine VHF transceiver, watertight or with a waterproof cover. When not in use to be stowed in a grab bag or emergency container (see *OSR* 4.21).
MoMu0	3.29.2	At least two hand-held marine VHF transceivers each with min 5 W output power, watertight or with waterproof covers. When not in use to be stowed in a grab bag (see *OSR* 4.21).
**	3.29.3	A second radio receiver, which may be the handheld VHF in *OSR* 3.29.1 above, capable of receiving weather bulletins.
MoMu0,1,2,3	3.29.4	A marine radio transceiver with an emergency antenna when the regular antenna depends upon the mast.
MoMu0,1,2,3	3.29.5	If the marine radio transceiver is a VHF:
MoMu0,1,2,3		a) a minimum rated output power of 25 W,
MoMu1,2,3		b) if installed after 2015 be *DSC* capable,
MoMu0		c) a marine VHF *DSC* radio covering all international and US marine channels and meeting International Telecommunications Union (ITU) class D.
MoMu0,1,2		d) a masthead antenna not less than 38 cm (15″) in length and co-axial feeder cable with not more than 40% power loss,
MoMu3		e) a masthead antenna and co-axial feeder cable with not more than 40% power loss,
MoMu1,2,3		f) *DSC* capable VHF transceivers shall be programmed with an assigned MMSI (unique to the boat), be connected to a *GPS* receiver and be capable of making distress alert calls as well as sending and receiving a *DSC* position report with another *DSC* equipped station,
Mo0,1,2,3 Mu1,2,3	3.29.6	An *AIS* Transponder which either:
MoMu0,1,2,3		a) shares the masthead VHF antenna via a low loss *AIS* antenna splitter, or
MoMu0,1,2,3		b) has a dedicated *AIS* antenna not less than 38 cm (15″) in length mounted with its base not less than 3 m (10′) above the *waterline* and co-axial feeder cable with not more than 40% power loss.
Mu0		The AIS transponder shall be class A.
MoMu3	3.29.7	A *GPS*.
MoMu1	3.29.8	One hand-held satellite telephone, watertight or with waterproof cover and internal battery.
MoMu0	3.29.9	At least two hand-held satellite telephones, watertight or with waterproof covers and internal batteries. When not in use each to be stowed in a grab bag (see *OSR* 4.21),
MoMu0	3.29.10	A direction-finding radio receiver operating on 121.5 MHz to take a bearing on a *PLB* or *EPIRB*, or an alternative device for crew overboard location when each *crewmember* has an appropriate personal unit (see *OSR* 4.22.1).
MoMu0	3.29.11	A satellite device able to send and receive data and a tracking device shall be *permanently installed* and permanently powered up for the duration of the race and for which the race committee shall have polling authority.
MoMu0	3.29.12	An MF/HF marine SSB transceiver (*GMDSS*/*DSC*) with at least 125 W transmitter power and frequency range from at least 1.6 to 29.9 MHz with *permanently installed* antenna and earth.
MoMu0	3.29.13	An active radar set *permanently installed* either:
MoMu0		a) a pulse (magnetron) unit with not less than 4 kW PEP and an antenna unit with a maximum dimension not less than 533 mm, or
MoMu0		b) a frequency modulated continuous wave (FMCW) Broadband Radar™ unit. The radar antenna unit shall remain essentially horizontal when the boat is heeled and at least 7 m (23′) above the water. Installations in place before January 2006 shall comply as closely as possible with *OSR* 3.29.13 a).

SECTION 4 – PORTABLE EQUIPMENT

A boat shall have:

4.01 Sail Letters & Numbers

**	4.01.1	Identification on sails which complies with *RRS* 77 and *RRS* Appendix G.
MoMu0,1,2,3	4.01.2	An alternative means of displaying identification as required under *RRS* Appendix G for a mainsail, to be displayed when none of the numbered sails are set.

4.02 Search and Rescue Visibility

MoMu0	4.02.1	A 4 m² (43 ft²) area of highly visible pink, orange or yellow on the coachroof and/or deck.
Mo1Mu1,2	4.02.2	A 1 m² (11 ft²) solid area of highly visible pink, orange or yellow capable of being displayed on the coachroof and/or deck.
Mu0,1,2,3,4	4.02.3	A 1 m² (11 ft²) area of highly visible pink, orange or yellow showing when the boat is inverted.

4.03 Soft Wood Plugs

** A tapered soft wood plug stowed adjacent to every through-hull opening.

4.04 Jackstays and Clipping Points

MoMu0,1,2,3	4.04.1	*Permanently Installed* fittings for *jackstay* ends and clipping points.
MoMu0,1,2,3	4.04.2	*Jackstays* which shall:
MoMu0,1,2,3		a) be independent on each side of the deck,
MoMu0,1,2,3		b) enable a *crewmember* to move readily between the working areas on deck and the cockpit(s) with the minimum of clipping and unclipping operations,
MoMu0,1,2,3		c) have a breaking strength of 2040 kg (4500#) and be uncoated and non-sleeved stainless steel 1 x 19 wire of minimum diameter 5 mm (3/16"), webbing or *HMPE* rope.
MoMu0,1,2,3	4.04.3	Clipping points which shall:
MoMu0,1,2,3		a) be adjacent to stations such as the helm, sheet winches and masts, where *crewmembers* work,
MoMu0,1,2,3		b) enable a *crewmember* to clip on before coming on deck and unclip after going below,
MoMu0,1,2,3		c) enable two-thirds of the crew to be simultaneously clipped on without depending on *jackstays*,
Mu0,1,2,3		d) on a trimaran with a rudder on the outrigger, permit a *crewmember* to repair the steering mechanism whilst attached to a clipping point.

4.05 Fire Fighting Equipment

**	4.05.1	A fire blanket adjacent to every cooking device.
MoMu1,2,3	4.05.2	2 fire extinguishers, each with 2 kg of dry powder or equivalent, in different parts of the boat.
MoMu4	4.05.3	2 fire extinguishers in different parts of the boat.
MoMu0	4.05.4	3 fire extinguishers, each with 2 kg of dry powder or equivalent, in different parts of the boat, one system of which is to deal with fire in a machinery space.

4.06 Anchors

MoMu1,2,3	4.06.1	2 un-modified anchors that meet the anchor manufacturer's recommendation based on the boat's dimensions with suitable combination of chain and rope, ready for immediate assembly, and ready for deployment within 5 minutes except that for a boat less than 8.5 m (28') L_H there shall be 1 anchor meeting the same criteria.
MoMu4	4.06.2	1 un-modified anchor that meets the anchor manufacturer's recommendation based on the boat's dimensions with suitable combination of chain and rope, ready for immediate assembly, and ready for deployment within 5 minutes.
MoMu0	4.06.3	Anchors, chain and rope which comply with relevant class rules or the rules of a recognised Classification Society.

	4.07	**Flashlights and Searchlights**
**		Watertight lights with spare batteries and bulbs as follows:
MoMu0,1,2,3		a) a searchlight, suitable for searching for a person overboard at night and for collision avoidance,
MoMu0,1,2,3		b) a flashlight in addition to *OSR* 4.07 a),
Mu3,4		c) the watertight flashlight in *OSR* 4.07 b) shall be stowed in the grab bag or emergency container.
MoMu0		d) a high-intensity heavy duty searchlight powered by the boat's batteries, instantly available for use on deck and in the cockpit.
	4.08	**First Aid Manual and First Aid Kit**
**		A First Aid Manual and First Aid Kit. The contents and storage of the First Aid Kit shall reflect the likely conditions and duration of the passage, and the number of *crewmembers*.
	4.09	**Foghorn**
**		A foghorn.
	4.10	**Radar Reflector**
**	4.10.1	A passive radar reflector with:
**		a) octahedral circular plates of minimum diameter 30 cm (12"),
**		b) octahedral rectangular plates of minimum diagonal dimension 40 cm (16"), or
**		c) a non-octahedral reflector with a documented root mean square minimum Radar Cross Section (RCS) area of 2 m² (22 ft²) from 0–360° of azimuth and ±20° of heel.
MoMu0	4.10.2	A Radar Target Enhancer (RTE) which complies with *ISO* 8729-2:2009 or equivalent.
	4.11	**Navigation Equipment**
MoMu0,1,2,3	4.11.1	Navigational charts (not solely electronic), light list and chart plotting equipment.
MoMu4	4.11.2	Navigational charts, light list, and chart plotting equipment. If electronic-only, an independent alternative shall be on board.
	4.12	**Safety Equipment Location Chart**
**		A safety equipment location diagram in durable waterproof material, clearly displayed in the main accommodation, marked with the location of principal items of safety equipment.
	4.13	**Depth, Speed and Distance Instruments**
MoMu0,1,2,3	4.13.1	A knotmeter or distance measuring instrument (log).
MoMu1,2,3,4	4.13.2	A depth sounder.
MoMu0	4.13.3	Two independent depth sounders.
	4.14	**Spare Number**
	4.15	**Emergency Steering**
MoMu0,1,2,3	4.15.1	An emergency tiller capable of being fitted to the rudder stock except when:
MoMu0,1,2,3		a) the principal method of steering is by means of an unbreakable metal tiller,
MoMu0,1,2,3		b) there are two methods (e.g. tillers, wheels) of controlling a rudder, neither of which shares components with the other except for the rudder stock.
MoMu0,1,2,3	4.15.2	A proven method of emergency steering with the rudder disabled.
	4.16	**Tools and Spare Parts**
**	4.16.1	Tools and spare parts, suitable for the duration and nature of the passage.
**	4.16.2	An effective means to quickly disconnect or sever the standing rigging from the boat.
	4.17	**Boat's Name**
**		The boat's name on miscellaneous buoyant equipment, such as lifejackets, cushions, lifebuoys, recovery slings, grab bags, etc.
	4.18	**Retro-Reflective Material**
**		Marine grade retro-reflective material on lifebuoys, recovery slings, liferafts and lifejackets.
	4.19	**EPIRBs**
MoMu0	4.19.1	Two water and manually activated 406 MHz *EPIRBs*.

MoMu1,2 4.19.2 A water and manually activated 406 MHz *EPIRB*.

MoMu0,1,2 4.19.3 A 406 MHz *EPIRB* registered after 2015 shall include an internal *GPS*.

MoMu0,1,2 4.19.4 All *EPIRBs* registered with the appropriate authority associated with the country code in the hexadecimal identification (15 Hex ID) of the beacon. A beacon can be registered online with the Cospas-Sarsat *IBRD* if the country does not provide a registration facility and the country has allowed direct registration in the *IBRD*.

4.20 Liferafts

4.20.1 Liferaft Construction

MoMu1,2 a) one or more inflatable liferafts with a total capacity to accommodate at least the total number of people on board which complies with:

MoMu1,2 i *LSA* Code 1997 Chapter IV or later version,

MoMu1,2 ii *ISO* 9650-1:2005, Type 1, Group A – Small Craft – Inflatable,

MoMu1,2 iii *ISAF* liferafts manufactured before 2016 until replacement is due at end of service life, or

MoMu1,2 iv *ORC* liferafts manufactured before 2003 until replacement is due at end of service life.

MoMu0 b) a sufficient number of liferafts so that in the event of any one liferaft being lost or rendered unserviceable, sufficient aggregate capacity remains for all *crewmembers,*

MoMu0 c) liferafts shall comply with *LSA* code 1997 Chapter IV or later version.

4.20.2 Minimum Liferaft Equipment

MoMu0,1,2 a) a *SOLAS* liferaft shall contain as a minimum a *SOLAS* A pack,

MoMu1 b) an *ISO* 9650 liferaft shall contain as a minimum Pack 1 (greater than 24 hours pack),

MoMu2 c) an *ISO* 9650 liferaft shall contain as a minimum Pack 2 (less than 24 hours pack),

MoMu1,2 d) the minimum contents of the *ISO* liferaft equipment packs are listed below. Some items, as indicated below, may be carried within accompanying waterproof grab bag(s) which shall be in a readily accessible location:

Table 5 – Minimum Required Equipment

MoMu1,2

Equipment	Pack 1 > 24 h	Pack 2 < 24 h	In liferaft	In liferaft or grab bag(s)
Portable buoyant bailer easily operable by hand	1	1	X	
Sponge	2	2	X	
Pair of buoyant paddles with handles (not mitts) tied into raft adjacent to an entrance	1	1	X	
First-Aid Kit including at least 2 tubes of sunscreen. All dressings must be capable of being effectively used in wet conditions. The first aid kit shall be clearly marked and shall be re-sealable.	1	0		X
Whistle	1	1	X	
Waterproof torch with 6 h duration and separate battery and bulb or complementary torch	2	1	X	
Signalling mirror	1	1	X	
Anti-seasickness pills, per person	6	6		X
Seasickness bag with simple effective closure system, per person	1	1		X
Red hand flares in accordance with *LSA* Code Chapter III, 3.2	6	3	3 min	X

Red parachute flares in accordance with *LSA* Code Chapter III, 3.1	2	2	1 min	X
Thermal protective aids in accordance with *LSA* Code Chapter III, 2.5	2	0		X
Repair outfit to enable survivors to repair leaks in any or all of the inflatable compartments. Repair systems must work when wet and be capable of being applied during violent motion.	1	1	X	
Air pump or bellows which shall be simple, robust and complete, with all necessary connections (loose parts shall be captive to the main apparatus) ready for instant use to enable air to be pumped into any or all of the inflatable compartments. The air pump or bellows shall be designed and built specifically for easy operation by hand	1	1	X	
Drinking water per person, in containers of each not more than 500 mL	1.5 L	0	0.5 L	X*
Food per person	10 000 kJ	0		X
* Drinking water in the grab bag (if any) may be replaced with a desalinator device				

4.20.3 Liferaft Packing and Stowage

MoMu0,1,2 a) Each liferaft shall be packed either in:

MoMu0,1,2 i a rigid container securely stowed on the working deck, in the cockpit or in an open space, or

MoMu0,1,2 ii a rigid container or valise securely stowed in a dedicated weather tight locker containing liferaft and abandon ship equipment only which is readily accessible and opens onto the cockpit or working deck, or transom.

MoMu0,1,2 b) On a *monohull* with *moveable ballast* or a *multihull*, the liferaft shall be readily deployable whether or not the boat is inverted.

MoMu0,1,2 c) The end of each liferaft painter should be *securely fastened* to the boat.

MoMu0,1,2 d) Each raft shall be capable of being moved to the *lifelines* or launched within 15 seconds.

MoMu1,2 e) In a boat with *series date* before June 2001, a liferaft may be packed in a valise not exceeding 40 kg securely stowed below deck adjacent to a companionway.

Liferaft Servicing

MoMu0,1,2 a) A liferaft shall be serviced at a manufacturer authorized service station at the following maximum intervals:

MoMu0,1,2 i *SOLAS* liferafts annually,

MoMu0,1,2 ii *ISO* 9650 canister packed liferafts every 3 years,

MoMu0,1,2 iii *ISO* 9650 valise packed liferafts every 3 years except that hired liferafts shall be serviced annually,

MoMu0,1,2 iv *ISAF* liferafts annually,

MoMu0,1,2 v *ORC* liferafts annually.

MoMu0,1,2 b) Servicing certificates (original or a copy) on board.

4.21 Grab Bags

Mo3Mu3,4 Either a watertight compartment or a grab bag, readily accessible whether or not the boat is inverted, with the following minimum contents:

Mo3Mu3,4 a) a watertight hand-held marine VHF transceiver with spare batteries,
Mo3Mu3,4 b) a watertight flashlight with spare batteries and bulb,
Mo3Mu3,4 c) 3 red hand flares,
Mo3Mu3,4 d) a watertight strobe light with spare batteries,
Mo3Mu3,4 e) a knife,
** f) if a grab bag is provided it shall have inherent flotation, at least 0.1 m² (1 ft²) area of fluorescent orange colour on the outside, shall be marked with the name of the boat, and shall have a lanyard and clip.

4.22 Crew Overboard Identification and Recovery

MoMu0,1,2 **4.22.1 Locator Beacons**

MoMu0,1,2 a) an *AIS* personal crew overboard beacon for each *crewmember*,
MoMu0 b) a *PLB* equipped with 406Mhz and 121.5Mhz for each *crewmember*,
MoMu0 c) a personal unit in addition to the *PLB* in *OSR* 4.22.1 b) if the location device carried by the boat in accordance with *OSR* 3.29.10 requires it,

MoMu0,1,2 Where possible every *PLB* shall be registered with the appropriate authority associated with the country code in the hexadecimal identification (15 Hex ID) of the beacon. A beacon can be registered online with the Cospas-Sarsat *IBRD* if the country does not provide a registration facility and the country has allowed direct registration in the *IBRD*.

MoMu0,1,2 **4.22.2 GPS Crew Overboard Position**

MoMu1,2 a) a *GPS* capable of recording a crew overboard position within 10 seconds, and monitoring that position.
MoMu0 b) a *GPS* capable of recording a crew overboard position within 10 seconds, and monitoring that position, and
MoMu0 c) connected to an emergency button immediately accessible to a helmsman which will sound an audible alarm in the accommodation and simultaneously send an appropriate signal to the *GPS*.

** **4.22.3 Lifebuoys**

MoMu3,4 a) a lifebuoy with a self-igniting light, a whistle, and a drogue within reach of the helmsman and ready for immediate use,
MoMu0,1,2 b) a lifebuoy with a self-igniting light, a whistle, and a drogue,
MoMu0,1,2 c) in addition to *OSR* 4.22.3 b) above, within reach of the helmsman and ready for immediate use, a second lifebuoy equipped with:
MoMu0,1,2 i a whistle, a drogue, a self-igniting light, and
MoMu0,1,2 ii a pole and flag. The pole shall be either permanently extended or be capable of being fully automatically extended,
MoMu0 iii each lifebuoy shall be equipped with a sachet of fluorescein dye.
MoMu0,1,2 d) at least one lifebuoy shall depend entirely on permanent buoyancy (e.g. foam),
** e) each inflatable lifebuoy and any automatic device shall be tested and serviced at intervals in accordance with its manufacturer's instructions.

** **4.22.4 Heaving Line**

** A heaving line, no less than 6 mm (1/4") diameter, 15–25 m (50–75') long, readily accessible to cockpit.

MoMu0,1,2,3 **4.22.5 Recovery Sling**

MoMu0,1,2,3 A recovery sling which includes a:
MoMu0,1,2,3 a) buoyant line of length no less than the shorter of 4 times L_H or 36m (120'),
MoMu0,1,2,3 b) buoyancy section (horseshoe) with no less than 90 N (20#) buoyancy,
MoMu0,1,2,3 c) minimum strength capable to hoist a *crewmember* aboard.

4.23 Pyrotechnic and Light Signals

** Pyrotechnic signals shall be provided conforming to *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:

** a) 2 orange smoke *LSA* III 3.3,

MoMu0,1,2,3 b) 4 red hand flares *LSA* III 3.2.

4.24 Spare Number

4.25 Cockpit Knife

** A strong, sharp knife, in a securely restrained sheath shall be readily accessible from the deck or a cockpit.

4.26 Storm & Heavy Weather Sail Inventory

** the following storm & heavy weather sails (or rotating wing mast if suitable) as specified in *OSR* 4.27:

MoMu0 4.26.1 a storm trysail,

MoMu1,2 4.26.2 either a trysail or mainsail reefing to reduce the luff by at least 50%,

MoMu3 4.26.3 either a trysail or mainsail reefing to reduce the luff by at least 40%,

MoMu4 4.26.4 either mainsail reefing to reduce the luff by 12.5% or a heavy weather jib,

MoMu0,1,2,3 4.26.5 heavy weather jib,

MoMu0,1,2 4.26.6 storm jib.

4.27 Storm & Heavy Weather Sail Specifications

4.27

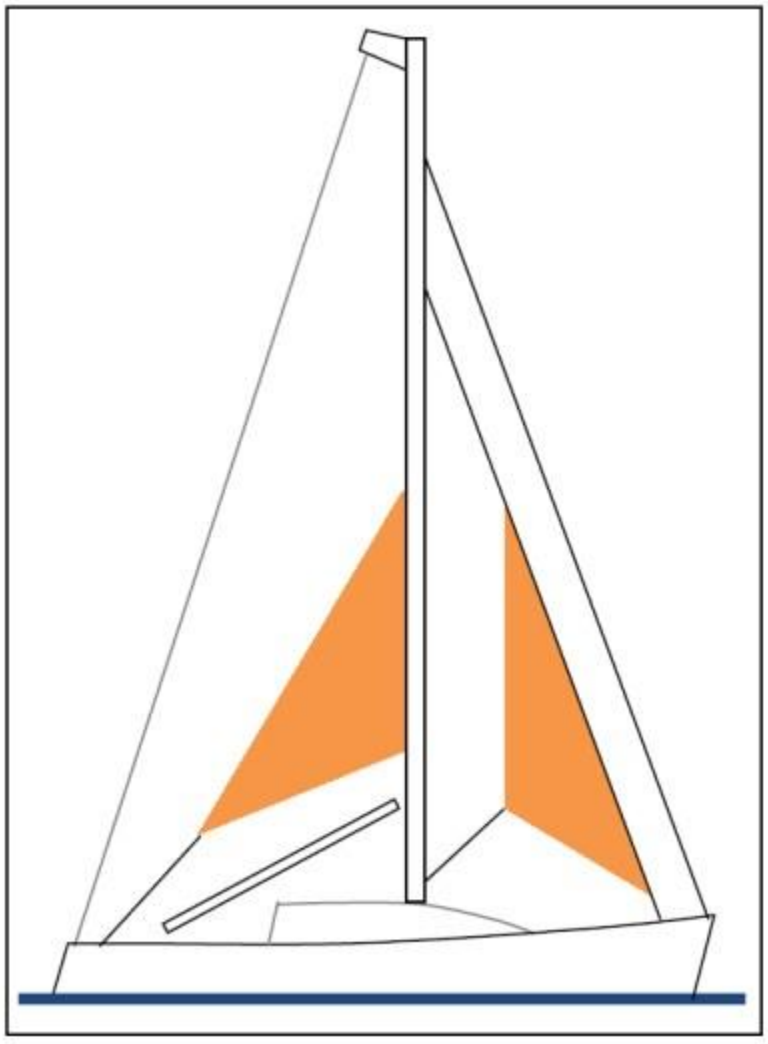

Figure 3 – Storm Sails

4.27.1 **Design**

** a) the material of the body of a storm sail purchased after 2013 shall have a highly visible colour (e.g. dayglo pink, orange or yellow),

** b) aromatic polyamides, carbon and similar fibres shall not be used in a trysail or storm jib, but *HMPE* and similar materials are permitted,
** c) sheeting positions on deck for each storm and heavy-weather sail,
** d) sheeting positions for the trysail independent of the boom, and
** e) the maximum area of storm and heavy weather sails shall be lesser of the areas below or as specified by the boat designer or sailmaker.

4.27.2 A Trysail with:

MoMu0,1,2 a) area not greater than 17.5% mainsail hoist (P) x mainsail foot length (E),
MoMu0,1,2 b) for sails made after 2011: The storm trysail area calculated as (0.5 x leech length x shortest distance between tack point and leech),
MoMu0,1,2 c) no headboard,
MoMu0,1,2 d) no battens,
MoMu0,1,2 e) sail number and letters on both sides, as large as practicable, and
MoMu0,1,2 f) in the case of a boat with an in-mast furling mainsail, the storm trysail shall be capable of being set while the mainsail is furled.

4.27.3 A Heavy Weather Jib (or Heavy Weather Sail in a Boat with no Forestay) with:

** a) area of 13.5% height of the *foretriangle* squared, and
** b) readily available method, independent of a luff groove, to attach to the stay.
** For sails made after 2011: Storm and heavy weather jib areas calculated as: (0.255 x luff length x (luff perpendicular + 2 x half width)).

4.27.4 A Storm Jib with:

MoMu0,1,2 a) area of 5% (height of the *foretriangle*) squared,
MoMu0,1,2 b) maximum luff length 65% of height of the *foretriangle*, and
MoMu0,1,2 c) permanently attached method, independent of a luff groove, to attach to the stay.
MoMu0,1,2 For sails made after 2011: Storm and heavy weather jib areas calculated as: (0.255 x luff length x (luff perpendicular + 2 x half width)).

4.28 Drogue, Sea Anchor

MoMu0 A drogue for deployment over the stern, or a sea anchor or parachute anchor for deployment at the bow, complete with all necessary gear (see Appendix K).

Mo0 **4.29 Deck Bags**

Mo0 4.29 If permitted by the Notice of Race, Sailing Instructions or Class Rules, bags for storing sails on deck shall be:

Mo0 a) so constructed to ensure rapid draining of water, and
Mo0 b) *securely fastened* in such a way that the integrity of deck fittings e.g. stanchions and *lifelines*, is not compromised.

Mo0,1,2 **4.30 Emergency Pumps,**

Mo0,1,2 either fixed or portable pump to remove ingress water from any compartment. This pump shall:

Mo0,1,2 a) have a minimum rated capacity of 200 l/min (3200 US gph),
Mo0,1,2 b) be operated by battery, main engine powered or a separate engine,
Mo0,1,2 c) if portable electric-powered, power cables to be terminated with alligator clips, and
Mo0,1,2 d) have sufficient hose to discharge directly overboard or into the cockpit.
Mo0,1,2 A combination of *permanently installed* and portable pumps may be combined to meet the above requirement.

SECTION 5 – PERSONAL EQUIPMENT

Each *crewmember* shall have:

5.01 Lifejacket

** 5.01.1 A lifejacket which shall:
** a) i if manufactured before 2012 comply with *ISO* 12402-3 (Level 150) or equivalent,

			including *EN* 396 or UL 1180 and:
**			• if inflatable have a gas inflation system
**			• have crotch/thigh straps (ride up prevention system)
MoMu0,1,2			• have an integral safety harness in compliance with *OSR* 5.02
**		ii	if manufactured after 2011 comply with *ISO* 12402-3 (Level 150) and be fitted with a whistle, lifting loop, reflective material automatic/manual gas inflation system:
**			• crotch/thigh straps (ride up prevention system)
MoMu0,1,2			• an integral safety harness in compliance with *OSR* 5.02
MoMu0,1,2,3		b)	have an emergency position indicating light in accordance with either *ISO* 12402-8 or *LSA* code 2.2.3,
**		c)	be clearly marked with the boat's or wearer's name,
MoMu0,1,2,3		d)	have a sprayhood in accordance with *ISO* 12402-8,
MoMu0		e)	have a *PLB* (as with other types of *EPIRB*, should be properly registered with the appropriate authority),
**		f)	if inflatable, be regularly checked for air retention.
MoMu0,1,2,3	5.01.2		A boat shall carry at least one gas inflatable lifejacket spare cylinder and, if appropriate, spare activation head for each type of lifejacket on board.
MoMu0,1,2	5.01.3		A boat shall carry at least one spare lifejacket as required in *OSR* 5.01.1, (a spare *PLB* described in *OSR* 5.01.1 e) is not required).
**	5.01.4		The person in charge shall personally check each lifejacket at least once annually.
	5.02		**Safety Harness and Tethers**
MoMu0,1,2,3	5.02.1		A harness that complies with *ISO* 12401 or equivalent.
MoMu0,1,2,3	5.02.2		A *tether* that shall:
MoMu0,1,2,3		a)	comply with *ISO* 12401 or equivalent,
MoMu0,1,2,3		b)	not exceed 2 m (6'-6") including the length of the hooks,
MoMu0,1,2,3		c)	have self-closing hooks,
MoMu0,1,2,3		d)	have overload indicator flag embedded in the stitching, and
MoMu0,1,2,3		e)	be manufactured after 2000.
MoMu0,1,2,3	5.02.3		either:
MoMu0,1,2,3		a)	a *tether* not exceeding 1 m (3'-3") including the length of the hooks, or
MoMu0,1,2,3		b)	an intermediate self-closing hook on a 2 m (6'-6") *tether*.
MoMu0	5.02.4		a boat shall carry spare harnesses and *tethers* as required in *OSR* 5.02 above sufficient for at least 10% of the *crewmembers* (minimum one unit).
MoMu0,1,2,3	5.02.5		A *tether* which has been overloaded shall be replaced.
	5.03		**Personal Location Lights**
MoMu0			Two packs of miniflares or two personal location lights (either *SOLAS* or strobe): one to be attached to, or carried on, the person when on deck at night.
	5.04		**Foul Weather Suits**
MoMu0			A foul weather suit with hood.
	5.05		**Knife**
MoMu0			A knife, to be worn on the person at all times.
	5.06		**Flashlight**
MoMu0			A buoyant watertight flashlight.
	5.07		**Survival Equipment**
MoMu0			an immersion suit (attention is drawn to *EN ISO* 15027-1 constant wear suits, and *EN ISO* 15027-2 abandonment suits and the *LSA* Code Chapter II, 2,3).
	5.08		**Diving Equipment**
MoMu0			The boat shall have at least two diving suits each, to cover the entire body, and including gloves, fins, and portable air supplies.

SECTION 6 – TRAINING

MoMu0	6.01.1	Every *crewmember* including the Person in Charge shall have undertaken training within the five years before the start of the race in *OSR* 6.02 Training Topics.
MoMu1,2	6.01.2	At least 30% but not fewer than two *crewmembers*, including the Person in Charge shall have undertaken training within the five years before the start of the race in *OSR* 6.02 Training Topics.
MoMu3	6.01.3	When there are only two *crewmembers*, at least one shall have undertaken training within the five years before the start of the race in *OSR* 6.02 Training Topics.
MoMu0,1,2	6.01.4	Except as otherwise provided in the Notice of Race, an in-date certificate gained at a *WS* approved Offshore Personal Survival Training course shall be accepted by an event Organizing Authority as evidence of compliance with *OSR* 6.01. See Appendix G – Model Training Course, for further details.
	6.02	**Training Topics**
MoMu0,1,2	6.02.1	Giving Assistance to Other Craft
MoMu0,1,2	6.02.2	Personal Safety Gear, theory and practice
MoMu0,1,2	6.02.3	Care and Maintenance of Safety Gear
MoMu0,1,2	6.02.4	Fire Precautions and Firefighting, theory and practical
MoMu0,1,2	6.02.5	Crew Overboard Prevention and Recovery
MoMu0,1,2	6.02.6	Hypothermia, Cold Shock and Drowning
MoMu0,1,2	6.02.7	Crew Health
MoMu0,1,2	6.02.8	Marine Weather
MoMu0,1,2	6.02.9	Heavy Weather
MoMu0,1,2	6.02.10	Storm Sails
MoMu0,1,2	6.02.11	Damage Control
MoMu0,1,2	6.02.12	Search and Rescue Organization
MoMu0,1,2	6.02.13	Pyrotechnics and Signalling Gear, theory and practical
MoMu0,1,2	6.02.14	Emergency Communications, theory and practical
MoMu0,1,2	6.02.15	Liferafts and Abandon Ship, theory and practical
	6.03	Spare Number
	6.04	**Routine Training On-Board**
**		At least annually the crews shall practice the drills for:
**		a) crew-overboard recovery, and
**		b) abandonment of vessel.
	6.05	**Medical Training**
MoMu0	6.05.1	At least one *crewmember* shall have a valid *STCW* A-VI/4-2 (Proficiency in Medical Care) certificate or equivalent.
MoMu0	6.05.2	In addition to *OSR* 6.05.1 another *crewmember* shall have a valid first aid certificate completed within the last five years meeting:
MoMu1		At least two *crewmembers* shall have a valid first aid certificate completed within the last five years meeting:
MoMu2		At least one *crewmember* shall have a valid first aid certificate completed within the last five years meeting:
MoMu0,1,2		a) A certificate listed on the *WS* website https://www.sailing.org/inside-world-sailing/activities-services/technical-offshore/technical-services/technical-and-offshore-safety/offshore-safety/osr-recognised-first-aid-qualifications/ of MNA recognised courses, or
MoMu0,1,2		b) *STCW* First Aid Training complying with A-VI/1-3 - Elementary First Aid or higher *STCW* level.
MoMu3,4	6.05.3	At least one *crewmember* shall be familiar with First Aid procedures, hypothermia, drowning, cardio-pulmonary resuscitation, and relevant communications systems.

MoMu0

6.06 Diving Training

At least 30% of the crew shall have received diving training to enable them to carry out basic repairs underwater and to provide assistance, if necessary, in recovery of a crew overboard.

The appendices listed below are included in the "Complete" version of the current World Sailing OSR available at https://www.sailing.org/inside-world-sailing/rules-regulations/offshore-special-regulations/

APPENDICES TO THE OFFSHORE SPECIAL REGULATIONS
Appendix A – Moveable and Variable Ballast
Appendix B – For Inshore Racing
Appendix C – For Inshore Dinghy Racing
Appendix D – A Guide to ISO and other Standards
Appendix E – World Sailing Code for the Organisation of Oceanic Races
Appendix F – Standard Inspection Card
Appendix G – Model Training Course
Appendix H – Model First Aid Training Course
Appendix J – Hypothermia
Appendix K – Drogues and Sea Anchors
Appendix L – Model Keel and Rudder Inspection Procedure

Offshore Special Regulations 2022-2023 for all Offshore Categories

Changes to Pages Preceding and Following Sections 1-6

Whereas the primary focus of the refinement WP is sections 1-6, there will be spillover effects to the pages preceding and succeeding those sections. These are noted below.

Offshore Racing Environmental Code

Last bullet – change 'yacht' to 'boat' so that OSR 1.03.3 can be deleted.

Contents

Remove the reference to the Alphabetical Index (see below).

Between the Contents section and the Appendices section, list tables and figures:

Alphabetical Index

Remove since it's not being maintained.

Appendix A

Either:

- Replace 2 instances of Age Date with *Series Date*,
- Keep 2 instances of Age Date and retain the definition in table 1 (but use ORC wording), or
- Bring the Aged Date definition into the appendix since it's the only place where its used (but use ORC wording).

Note: the ORC wording is "The month and year of the first launching when the boat was completed and equipped for sailing."