**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) boats racing offshore.

**1.01.2** The OSR do not replace, but rather 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 OSRs for inshore racing which includes that adequate shelter and or effective rescue is available all
1.02 Responsibility of Person in Charge

1.02.1 Under RRS 4 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 bad 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 2.02.

1.03 Definitions, Abbreviations, Word Usage

1.03.1 Definitions of Terms used in this document

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>#</td>
<td>Pound force (lbf)</td>
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<tr>
<td>ABS</td>
<td>American Bureau of Shipping</td>
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<tr>
<td>Age</td>
<td>Month/year of first launch</td>
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<td>AIS</td>
<td>Automatic Identification Systems</td>
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<td>CEN</td>
<td>Comité Européen de Normalisation</td>
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<tr>
<td>Coaming</td>
<td>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</td>
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<td>COLREGS</td>
<td>International Regulations for Preventing Collisions at Sea</td>
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<td>Contained</td>
<td>A cockpit where the combined area open aft to the sea is less than</td>
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<tr>
<td>Cockpit</td>
<td>50% maximum cockpit depth x maximum cockpit width</td>
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<td>CPR</td>
<td>Cardio-Pulmonary Resuscitation</td>
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<tr>
<td>Crewmember</td>
<td>Every person on board</td>
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<td>DSC</td>
<td>Digital Selective Calling</td>
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<tr>
<td>EN</td>
<td>European Norm</td>
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<tr>
<td>EPIRB</td>
<td>Emergency Position-Indicating Radio Beacon</td>
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<td>ERS</td>
<td>World Sailing - Equipment Rules of Sailing</td>
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<td>FA Station</td>
<td>The transverse station at which the upper corner of the transom meets the sheerline.</td>
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<td>First Launch</td>
<td>Month &amp; year of first launch of the individual boat</td>
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<td>Foul-Weather</td>
<td>Clothing designed to keep the wearer dry and may consist of one piece or several</td>
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<tr>
<td>Suit</td>
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<td>GMDSS</td>
<td>Global Maritime Distress &amp; Safety System</td>
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<tr>
<td>GNSS</td>
<td>Global Navigation Satellite System</td>
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<tr>
<td>GPS</td>
<td>Global Positioning System</td>
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<td>Hatch</td>
<td>The term hatch includes the entire hatch assembly including the lid or cover as part of that assembly</td>
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<tr>
<td>HMPE</td>
<td>High Modulus Polyethylene (Dyneema®/Spectra® or equivalent)</td>
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<td>IMO</td>
<td>International Maritime Organisation</td>
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<tr>
<td>IMSO</td>
<td>The International Mobile Satellite Organisation, the independent, intergovernmental organisation that oversees Inmarsat’s performance of its Public Service Obligations for the GMDSS and reports on these to IMO</td>
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<tr>
<td>INMARSAT</td>
<td>Inmarsat Global Limited is the private company that provides GMDSS satellite distress and safety communications, plus general communications via voice, fax and data</td>
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<td>ISAF</td>
<td>International Sailing Federation- (now World Sailing)</td>
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ITU International Telecommunications Union
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.
LH 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
LWL (Length of) loaded waterline
Monohull A boat with one hull
Moveable 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
Multihull A boat with more than one hull
Open Cockpit A cockpit that is not a Contained Cockpit.
ORC Offshore Racing Congress (formerly Offshore Racing Council)
OSR Offshore Special Regulation(s)
Permanently 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
Primary Month & Year of first launch of the first boat of the production series or first launch of a non-series boat
Proa Asymmetric Catamaran
Rode Rope, chain, or a combination of both, which is used to connect an anchor to the boat.
RRS ISAF - Racing Rules of Sailing
Safety Line A tether used to connect a safety harness to a strong point
SAR Search and Rescue
SART Search and Rescue Transponder
Securely Held strongly in place by a method (e.g. rope lashings, wing-nuts)
Fastened 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
SSS The Safety and Stability Screening numeral
Static Ballast Material carried for the sole purpose of increasing weight and/or influencing stability and/or trim and which is not moved or varied in weight while a boat is racing
Static Safety A safety line (usually shorter than a safety line carried with a harness) kept clipped on at a work-station
STIX ISO 12217-2 Stability Index
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.
Waterline The water surface when the boat is floating in measurement trim
World Sailing formerly the International Sailing Federation or ISAF

** 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".

SECTION 2 - APPLICATION & GENERAL REQUIREMENTS

2.01 Categories of Events

** 2.01 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

2.02 Incident Reporting
2.02 The Organizing Authority of a race will establish whether any incidents occurred, which if reported would be likely to 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 World Sailing concerning incident reporting.

2.03 Inspection

** 2.03 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

** 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

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

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

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 a race organizer 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

3.05 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 Transverse watertight bulkheads at intervals of not more than 4 m (13'-3") in every hull without accommodation if with a First Launch after 1998

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

3.07 Exits and Escape Hatches - Multihulls

3.07.1 Exits

Mu0,1,2,3 3.07.1 At least two exits in each hull which contains accommodation

3.07.2 Escape Hatches, Underside Clipping Points & Handholds

Mu0,1,2,3,4 a) If 12 m (39'-4") LH and greater each hull which contains accommodation:

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 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 on boats if First Launch after 2002
each escape hatch above the waterline when the boat is inverted;
each escape hatch at or near the midships station if First Launch after 2000
each escape hatch on the side nearest the vessel’s central axis for a catamaran
if First Launch after 2002

Mu0,1,2,3,4 iii if a trimaran at least two escape hatches in compliance with the dimensions in
Mu0,1,2,3,4 iv if 12 m (39'-4") LH and greater if First Launch after 2000
Mu0,1,2,3,4 v each escape hatch shall have been opened both from inside and outside within
Mu0,1,2,3,4 6 months prior to the race
Mu0,1,2,3,4 3.07.2 each escape hatch on the side nearest the vessel’s central axis for a catamaran
Mu0,1,2,3,4 if First Launch after 2002

Mu0,1,2,3,4 3.07.2 if less than 12 m (39'-4") LH if First Launch after 2002

Mu0,1,2,3,4 3.07.2 a) ii if less than 12 m (39'-4") LH if First Launch after 2002
Mu0,1,2,3,4 iv each escape hatch at or near the mid ships station if First Launch after 2000
Mu0,1,2,3,4 v each escape hatch above the waterline when the boat is inverted;

Mu0,1,2,3,4 3.07.2 b) if a trimaran at least two escape hatches in compliance with the dimensions in
Mu0,1,2,3,4 3.07.2 c) if a trimaran at least one escape hatch in compliance with the dimensions in
Mu0,1,2,3,4 3.07.2 d) (on a trimaran these shall be around the central hull)
Mu0,1,2,3,4 3.07.2 e) a catamaran with a central nacelle first launched after 2002 shall have on the
Mu0,1,2,3,4 underside around the central nacelle, handholds of sufficient capacity to enable
Mu0,1,2,3,4 all persons on board to hold on and/or clip on securely

3.08 Hatches & Companionways

3.08.1 Hatch covers forward of the maximum beam station shall not open toward the
Mu0,1,2,3,4 interior of the boat, except hatches in the side of a coachroof or ports having
Mu0,1,2,3,4 an area of less than 0.071 m² (110 in²)

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

3.08.3 Hatches not conforming with 3.08.1 and 3.08.2 shall be clearly labelled and
Mu0,1,2,3,4 used in accordance with the following instruction “NOT TO BE OPENED AT
Mu0,1,2,3,4 SEA”

3.08.4 Companionway hatches:

3.08.5 Cockpits

3.08.6 a) fitted with a strong securing arrangement which shall be operable from the
Mu0,1,2,3,4 exterior and interior even when the boat is inverted

3.08.7 blocking devices:

3.08.8 i capable of being retained in position with the hatch open or shut
3.08.9 ii secured to the boat (e.g. by lanyard) for the duration of the race
3.08.10 iii permit exit in the event of inversion

3.08.11 if a multihull with a companionway hatch extending below the local sheerline
Mu0,1,2,3,4 either:

3.08.12 a) have a minimum sill height of 300 mm (12") and be capable of being blocked
Mu0,1,2,3,4 off up to the level of the local sheerline whilst giving access to the interior with
Mu0,1,2,3,4 the blocking device(s) in place; or

3.08.13 b) be in compliance with ISO 11812 to design category A

3.09.1 Cockpits that self-drain quickly by gravity at all angles of heel and are
Mu0,1,2,3,4 permanently incorporated as an integral part of the boat

3.09.2 A cockpit sole at least 2% LWL above the waterline (or in IMS boats with First
Mu0,1,2,3,4 Launch before 2003, at least 2% L above the waterline)

3.09.3 A bow, lateral, central or stern well is a cockpit for the purposes of OSR 3.09

3.09.4 Cockpit Volume

3.09.5 The maximum combined volume below lowest coamings of all contained
cockpits shall be:

3.09.6 a) primary launch before April 1992: 6% (LWL x maximum beam x freeboard
Mu0,1,2,3,4 abreast the cockpit)

3.09.7 b) primary launch after March 1992 as above for the appropriate category except

Mu0,1,2,3,4 that “lowest coamings” shall not include any aft of the FA station and no
Mu0,1,2,3,4 extension of a cockpit aft of the working deck shall be included in calculation of
cockpit volume

3.09.8 Cockpit Drains

3.09.9 Cockpit drain cross section area of unobstructed openings (after allowance for
Mu0,1,2,3,4 screens if fitted) shall be at least that of:

3.09.10 a) 2 x 25 mm (1") diameter or equivalent for a boat less than 8.5 m (28') LH
** b) 4 x 20 mm (3/4") diameter or equivalent for a boat 8.5 m (28') LH or greater

** 3.10 Sea Cocks or Valves

3.10 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

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

** 3.12 Mast Step

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

** 3.13 Watertight Bulkheads

Mo0Mu0,1,2,3,4 3.13.1 Either a watertight “crash” bulkhead within 15% of LH from the bow and abaft the forward end of LWL, or permanently installed closed-cell foam buoyancy effectively filling the forward 30% LH of the hull

Mo0Mu0,1,2,3,4 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

** 3.14 Pulpits, Stanchions, Lifelines

3.14.1 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 Primary Launch before 1993 where it shall be no greater than 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")
** 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 a) 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 Spare number
3.14.4 Spare number
3.14.5 Spare number

3.14.6 Lifeline Specifications

Mo4,Mu** a) Lifelines of either:
Mo4,Mu** i) stranded stainless steel wire
Mo4,Mu** ii) HMPE

** 3.14.6 The minimum diameter is specified in table 8 below

** 3.14.6 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.

** 3.14.6 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

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

Mo4,Mu** 3.14.6 When HMPE is used, it shall be protected from chafe and spliced in accordance with the manufacturer's recommended procedures

f) Wire Min. lifeline diameter HMPE rope (Single braid) min. lifeline diameter HMPE Core (Braid on braid) min. lifeline diameter
LH under 8.5m (28") 3mm (1/8") 4mm (5/32") 4mm (5/32")
8.5m - 13m 4mm (5/32") 5mm (3/16") 5mm (3/16")
over 13m (42' 8") 5mm (3/16") 5mm (3/16")

3.15 Multihull Nets or Trampolines

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
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
b) forward crossbeam, and the intersection of the crossbeam and the central hull
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:-

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 Trimmers with Single Crossbeams
Mu0,1,2,3,4

3.15.3 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

3.16.1 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

3.18 Toilet
MoMu0,1,2

3.19 Bunks
Mo0

3.20 Cooking Facilities
MoMu0,1,2,3

3.21 Drinking Water Tanks & Drinking Water
MoMu0

3.21.1 Drinking Water Tanks

3.21.1 Permanently installed delivery pump and water tanks dividing the water supply
a) into at least three compartments

3.21.2 Drinking Water

3.21.2 Equipment (which may include watermakers and tanks containing water)
a) 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 voyage

3.21.3 Emergency Drinking Water

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

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

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

3.22 Hand Holds
**

3.22 Adequate hand holds fitted below deck

3.23 Bilge Pumps and Buckets
**

3.23.1 two strong buckets, each with a lanyard and of at least 9 l (2.4 US Gal)
a) capacity
Mo3Mu0,1,2

3.23.1 one permanently installed manual bilge pump
b)

3.23.1 provision to pump out all watertight compartments (except those filled with

c) 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 Closed 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 3.24 a) Marine magnetic compass capable of being used as a steering compass:
MoMu0,1,2,3,4 3.24 b) Permanently installed marine magnetic steering compass, independent of any power supply, correctly adjusted with deviation card
MoMu0,1,2,3 3.24 c) a second compass which may be hand-held and/or electronic

3.25 Halyards.
MoMu0,1,2,3 3.25 a) A minimum of two halyards, each capable of hoisting a sail, on each mast
MoMu0,1,2,3 3.25 b) No halyard shall be locked, lashed or otherwise secured to the mast in a way that requires a person to go aloft in order to lower a sail in a controlled manner, except for a headsail in use with a furling device.

3.26 Bow Fairlead
Mo0 3.26 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.
MoMu0,1,2,3 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
MoMu0,1,2,3 3.27.4 spare bulbs (not required for LED)

3.28 Engines, Generators, Fuel
3.28.1 Propulsion Engines
MoMu0,1,2,3 3.28.1 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 3.28.1 b) an engine which provides a minimum speed in knots of \((1.8 \times \sqrt{LWL} \text{ in metres})\) or \((\sqrt{LWL} \text{ in feet})\)
Mo0,1,2Mu0 3.28.1 c) inboard engine
MoMu0,1,2,3 3.28.1 d) an inboard combustion engine shall have a permanently installed exhaust, cooling system, fuel supply, fuel tank(s) and shall have adequate heavy weather protection
MoMu0,1,2,3 3.28.1 e) 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
MoMu0,1,2,3 3.28.2 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 3.28.3 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 3.28.3 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
MoMu0,1,2,3 3.28.4 a dedicated engine/generator starting battery when an electric starter is the only method for starting the engine and/or separate generator
MoMu0,1,2,3 3.28.4 a) batteries installed after 2011 shall be of the sealed type from which liquid electrolyte cannot escape
MoMu0,1,2,3 3.28.4 c) 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

3.29 Communications Equipment, GPS, Radar, AIS
MoMu0,1,2,3 3.29.1 a marine radio transceiver with an emergency antenna when the regular antenna depends upon the mast
if the marine radio transceiver is a VHF:
   a) a minimum rated output power of 25 W
   b) a masthead antenna not less than 38 cm (15") in length and co-axial feeder
cable with not more than 40% power loss
   c) be DSC capable if installed after 2015
   d) 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
   e) a marine VHF DSC radio covering all international and US marine channels and
meeting ITU class D

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)

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)

a second radio receiver, which may be the handheld VHF in 3.29.5 above,
capable of receiving weather bulletins

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 crew member has an appropriate personal unit (see OSR 4.22.1);
a Standard-C satellite terminal (GMDSS) shall be permanently installed and
permanently powered up for the duration of the race and for which the race
committee shall have polling authority.
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.
an active radar set permanently installed either:
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
a frequency modulated continuous wave (FM CW) 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 3.29.11 a).
a class A AIS Transponder which either:
shares the masthead VHF antenna via a low loss AIS antenna splitter; or
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

SECTION 4 - PORTABLE EQUIPMENT

A boat shall have:

** 4.01 Sail Letters & Numbers
   Identification on sails which complies with RRS 77 and RRS Appendix G
   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
   A 4 m² (43 ft²) area of highly-visible pink, orange or yellow on the coachroof
   and/or deck
   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
   Permanently Installed fittings for jackstay ends and clipping points
MoMu0,1,2,3 4.04.2 Jackstays which shall:
   a) be independent on each side of the deck
   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
   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:
   a) be adjacent to stations such as the helm, sheet winches and masts, where
      crewmembers work
   b) enable a crewmember to clip on before coming on deck and unclip after going
      below
   c) enable two-thirds of the crew to be simultaneously clipped on without
      depending on jackstays
   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

MoMu0 4.05.1 A fire blanket adjacent to every cooking device with an open flame
MoMu0 4.05.2 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

MoMu0 4.06.1 Anchors, chain and rope which comply with relevant class rules or the rules of
    a recognised Classification Society (e.g. Lloyd’s, DNV, etc.)
MoMu1,2,3 4.06.2 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’) LH there shall be 1 anchor
    meeting the same criteria.

** 4.07 Flashlights and Searchlights

MoMu0,1,2,3 4.07.1 Watertight lights with spare batteries and bulbs as follows:
   a) a searchlight, suitable for searching for a person overboard at night and for
      collision avoidance
   b) a flashlight in addition to 4.07 a)
MoMu0 4.07.1 a high-intensity heavy duty searchlight powered by the boat’s batteries,
    instantly available for use on deck and in the cockpit
   d) 4.07 a)

** 4.08 First Aid Manual and First Aid Kit

MoMu0 4.08 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 crew

** 4.09 Foghorn

** 4.10 Radar Reflector

** 4.11 Navigation Equipment

** 4.12 Safety Equipment Location Chart
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)
MoMu0 4.13.2 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 4.15.1 the principal method of steering is by means of an unbreakable metal tiller
MoMu0,1,2,3 a) 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 b) 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

** 4.17 The boat's name on miscellaneous buoyant equipment, such as lifejackets, cushions, lifebuoys, recovery slings, grab bags etc.

** 4.18 Retro-reflective material

** 4.18 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
MoMu0,1,2 4.19.2 A 406 MHz EPIRB registered after 2015 shall include an internal GPS
MoMu0,1,2 4.19.3 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

MoMu0 4.20.1 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 4.20.1 Liferafts shall comply with SOLAS LSA code 1997 Chapter IV or later version
MoMu0 4.20.1 c)

** 4.20.2 Minimum Liferaft Equipment

MoMu0,1,2 4.20.2 A SOLAS liferaft shall contain as a minimum a SOLAS A pack;
MoMu0,1,2 a)

** 4.20.3 Liferaft Packing and Stowage

MoMu0,1,2 4.20.3 Each liferaft shall be packed either in:-
MoMu0,1,2 a) a rigid container securely stowed on the working deck, in the cockpit or in an open space; or:-
MoMu0,1,2 a) i 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 c) On a multihull or on a monohull with moveable ballast the liferaft shall be readily deployable whether or not the boat is inverted
MoMu0,1,2 d) The end of each liferaft painter should be securely fastened to the boat
MoMu0,1,2 e) Each raft shall be capable of being got to the lifelines or launched within 15 seconds

MoMu0,1,2 4.20.4 Spare Number

MoMu0,1,2 4.20.5 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 4.20.5 SOLAS liferafts annually
  a) i
  ISO 9650 canister packed liferafts every 3 years
  a) ii
  ISO 9650 valise packed liferafts every 3 years except that hired liferafts shall
  be serviced annually
  a) iii
  ISO 9650 valise packed liferafts every 3 years except that hired liferafts shall
  be serviced annually
  a) iv
  ISAF liferafts annually
  a) v
  ORC liferafts annually
  Servicing certificates (original or a copy) on board

** 4.21 Grab Bags
  4.21 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
4.22.1 Locator Beacons
MoMu0 4.22.1 A PLB (Personal Locator Beacon) equipped with 406Mhz and 121.5Mhz for
  each crew member
MoMu0,1,2 4.22.1 An AIS personal crew overboard beacon for each crew member
  b)
MoMu0 4.22.1 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 3.29.07 requires it;
MoMu0,1,2 4.22.1d) 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 4.22.2 GPS Crew Overboard Position
MoMu0 4.22.2 A GPS capable of recording a crew overboard position, within 10 seconds, and
  monitoring that position, and
MoMu0 4.22.2 b) 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
MoMu0,1,2 4.22.3 a lifebuoy with a self-igniting light, a whistle and a drogue
MoMu0,1,2 4.22.4 In addition to 4.22.3 above, within reach of the helmsman and ready for
  immediate use, a second lifebuoy equipped with:
  a) a pole and flag. The pole shall be either permanently extended or be capable
     of being fully automatically extended
  b) Each lifebuoy shall be equipped with a sachet of fluorescein dye
  c)
MoMu0,1,2 4.22.5 At least one lifebuoy shall depend entirely on permanent buoyancy (e.g. foam)
MoMu0,1,2 4.22.6 Each inflatable lifebuoy and any automatic device shall be tested and serviced
  at intervals in accordance with its manufacturer’s instructions
MoMu0,1,2 4.22.7 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 4.22.8 A recovery sling which includes a:
  MoMu0,1,2,3 4.22.8 a) buoyant line of length no less than the shorter of 4 times LH or 36m (120’)
MoMu0,1,2,3 4.22.8 b) buoyancy section (horseshoe) with no less than 90 N (20#) buoyancy
MoMu0,1,2,3 4.22.9 c) minimum strength capable to hoist a crewmember aboard

** 4.23 Pyrotechnic and Light Signals
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
4.24 Spare Number

4.25 **Cockpit Knife**

4.25 A strong, sharp knife, sheathed and securely restrained shall be provided readily accessible from the deck or a cockpit.

4.26 **Storm & Heavy Weather Sails**

4.26.1 **Design**

**Figure 3**

4.26.1 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)

4.26.1 a) Aromatic polyamides, carbon and similar fibres shall not be used in a trysail or storm jib but HMPE and similar materials are permitted

4.26.1 b) Sheeting positions on deck for each storm and heavy-weather sail

4.26.1 c) Sheeting positions for the trysail independent of the boom

4.26.2 **Sail Areas**

4.26.2 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

4.26.2 a) A heavy-weather jib (or heavy-weather sail in a boat with no forestay) with:

4.26.2 a) i) area of 13.5% height of the foretriangle (IG) squared

4.26.2 ii) readily available means, independent of a luff groove, to attach to the stay
A storm jib with:

- **a) ii** area of 5% height of the foretriangle (IG) squared
- **b) i** maximum luff length 65% of IG
- **b) ii** permanently attached means, independent of a luff groove, to attach to the stay
- **b) iii** For sails made after 2011: Storm and heavy weather jib areas calculated as:
  
  \[(0.255 \times \text{luff length} \times (\text{luff perpendicular} + 2 \times \text{half width}))\]

A storm trysail with:

- **d) i** area not greater than 17.5% mainsail hoist (P) x mainsail foot length (E)
- **d) ii** For sails made after 2011: The storm trysail are calculated as: \((0.5 \times \text{leech length} \times \text{shortest distance between tack point and leech})\)
- **d) iii** no headboard
- **d) iv** no battens
- **d) v** sail number and letters on both sides, as large as practicable
- **d) vi** 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

**4.26.2 Sail Inventory**

- **a) i** either a storm trysail as defined in OSR 4.26.2 d), or mainsail reefing to reduce the luff by at least 50% (or rotating wing mast if suitable)
- **a) ii** 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)

**4.30.1 Emergency Pumps**

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

**SECTION 5 - PERSONAL EQUIPMENT**

Each crew member shall have:

**5.01 Lifejacket**

- **5.01.1** A lifejacket which shall:
  
  - 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 (RUPS))
  - have an integral safety harness in compliance with OSR 5.02
  - if manufactured after 2011 comply with ISO 12402-3 (Level 150) and be fitted
a) ii with a whistle, lifting loop, reflective material automatic/manual gas inflation system

**

5.01.1 crotch/thigh straps (ride up prevention system (RUPS))

MoMu0,1,2 5.01.1 an integral safety harness in compliance with OSR 5.02

MoMu0,1,2,3 5.01.1 have an emergency position indicating light in accordance with either ISO 12402-8 or SOLAS LSA code 2.2.3

**

5.01.1 be clearly marked with the boat’s or wearer’s name

MoMu0,1,2,3 5.01.1 have a sprayhood in accordance with ISO 12402-8

d) MoMu0 5.01.1 have a PLB unit (as with other types of EPIRB, should be properly registered with the appropriate authority)

**

5.01.1 if inflatable, 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 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 5.02.2 comply with ISO 12401 or equivalent

a) MoMu0,1,2,3 5.02.2 not exceed 2 m (6'-6") including the length of the hooks

b) MoMu0,1,2,3 5.02.2 have self-closing hooks
c) MoMu0,1,2,3 5.02.2 have overload indicator flag embedded in the stitching
d) MoMu0,1,2,3 5.02.2 be manufactured after 2000

e) MoMu0,1,2,3 5.02.3 All of the crew shall have either:

MoMu0,1,2,3 5.02.3 a tether not exceeding 1m(33") including the length of the hooks, or

MoMu0,1,2,3 5.02.3 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 5.03 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 5.04 A foul weather suit with hood

5.05 Knife

MoMu0 5.05 A knife, to be worn on the person at all times

5.06 Flashlight

MoMu0 5.06 A buoyant watertight flashlight

5.07 Survival Equipment

MoMu0 5.07 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 5.08 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 member of a crew including the Person in Charge shall have undertaken training within the five years before the start of the race in OSR 6.02 Training
At least 30% but not fewer than two members of a crew, 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

Except as otherwise provided in the Notice of Race, an in-date certificate gained at a World Sailing / ISAF Approved Offshore Personal Survival Training course shall be accepted by a race organizing authority as evidence of compliance with Special Regulation 6.01. See Appendix G - Model Training Course, for further details.

6.02 Training Topics
6.02.1 Giving Assistance to Other Craft
6.02.2 Personal Safety Gear, theory and practice
6.02.3 Care and Maintenance of Safety Gear
6.02.4 Fire Precautions and Firefighting, theory and practical
6.02.5 Crew Overboard Identification and Recovery
6.02.6 Hypothermia, Cold Shock and Drowning
6.02.7 Crew Health
6.02.8 Marine Weather
6.02.9 Heavy Weather
6.02.10 Storm Sails
6.02.11 Damage Control
6.02.12 Search and Rescue Organization
6.02.13 Pyrotechnics and Signalling Gear, theory and practical
6.02.14 Emergency Communications, theory and practical
6.02.15 Liferafts and Abandon Ship, theory and practical
6.03 Spare Number

6.04 Routine Training On-Board
6.04 a) Crew-Overboard Recovery
6.04 b) Abandonment of vessel

6.05 Medical Training
6.05.1 In addition to 6.05.1 another crewmember shall have a valid first aid certificate completed within the last five years meeting:
6.05.2 a) A certificate listed on the World Sailing website www.sailing.org/specialregs of MNA recognised courses
6.05.2 b) STCW First Aid Training complying with A-VI/1-3 - Elementary First Aid or higher STCW level

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

APPENDICES TO 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