

World Cruising Club Safety Equipment Requirements

2023

The WCC safety equipment requirements have been drawn up to ensure the minimum level of safety for yachts participating in World Cruising Club Events. The World Sailing Offshore Special Regulations (OSR) have been used as a guideline to compile these regulations. See www.sailing.org/offshore-special-regulations

These safety equipment requirements do not override any greater safety requirement demanded by the yacht's national or flag country, maritime authorities or appropriate regulatory bodies.

Yacht owners considering taking fare paying guests or crew should consider the implication in relation to their national or flag regulations as required by the appropriate proper authorities.

The requirements are in two sections:

Section One - Mandatory Safety Equipment Requirements

This equipment must be carried and all items will be sighted during the safety equipment inspection prior to the start. Failure to comply may lead to disqualification from the Rally.

Section Two - Recommended Safety Equipment

Whilst equipment in this section is not mandatory the organisers strongly suggest that all the recommendations in this section are complied with. The Safety Equipment Officer will be available to discuss points made in this section during the inspection.

For rallies with a racing division only:

Division II (Racing) is run under World Sailing Offshore Special Regulations for Category 1 and these Safety Equipment Requirements. All Racing Division Skippers should ensure they compliant with these requirements and utilise the check lists available on the World Sailing Website when preparing the boat.

For World ARC yachts:

Equipment or service dates should not expire within the first six months of the start of the Rally. Your safety equipment inspector will be able to advise you about where to renew these items subsequently.

General Requirements

It is the entire sole and inescapable responsibility of each skipper to ensure that all necessary safety precautions whatsoever are taken in respect of themselves, the crew and the yacht.

All safety equipment that requires regular servicing must be in date, at the start of the Rally, and remain in date for the duration of the Rally. (The Test Certificate for the liferaft will be inspected during the Safety Equipment Inspection).

All safety equipment carried must:

- i. be of type, size and capacity commensurate with the size of yacht and crew
- ii. function correctly
- iii. be easily accessible

Each crew member must be fully conversant with the operation of all safety equipment carried and know its stowage positions.

Section One - Mandatory Safety Equipment Requirements

Liferaft

A purpose made, self inflating, liferaft(s) with sufficient places to carry all the crew must be either:

- i. An ISO Standard 9650, Type 1 Group A, with service Pack 1 (>24 hours) (Service Pack 2 (<24 hours) accepted if equivalent items added to enhance the grab bag), or
- ii. An ISAF liferaft manufactured before 2016 until replacement is due at end of service life, plus food and water equivalent to (i) above, or
- iii. A SOLAS (LSA Code 1997 Chapter IV or later) containing a SOLAS A pack

Each raft shall be mounted externally or capable of being at the lifelines ready to launch within 15 seconds. On a multihull, each raft shall be deployable whether inverted or not.

If a raft is stowed in a locker, the locker must be dedicated to the stowage of the raft and must not have anything else stowed in it that may hinder access to the raft or cause damage to it.

The end of each raft painter line must be secured to a strong point on board the yacht.

Each raft must have a valid inspection certificate from the manufacturer or approved service agent, valid for the period of the Rally. The servicing certificate, or a copy, must be carried on the yacht.

Liferaft Servicing maximum intervals:

- SOLAS rafts - every year.
- ISO 9650 canister (hard case) packed rafts - every 3 years.
- ISO 9650 valise (soft case) packed rafts - every 3 years, or every year if it is rented.
- ISAF rafts - every year.

EPIRB (Emergency Position Indicating Radio Beacon)

A floating, water and manually activated approved EPIRB transmitting on 406 MHz and 121.5MHz or AIS, fitted with an internal GPS.

The EPIRB must be correctly registered with the appropriate home authority.

[Personal locator beacons (PLBs) carried do not replace the requirement for a yacht's EPIRB]

Long Range Communications Equipment

A correctly functioning communications system capable of sending and receiving email messages whilst at sea, either via satellite or via SSB(HF) radio with pactor modem.

This paragraph does not apply to: ARC Portugal, or ARC Baltic.

SSB HF Radio: World-ARC yachts must be fitted with a Digital Selective Calling (DSC) capable marine SSB HF radio transceiver covering the 2 – 22 MHz bands, with an independent aerial for DSC operation or a suitable alternative 'always-on' satcoms system. See the [Communications Section](#) for more details

VHF

An installed VHF DSC capable radio transceiver with a rated output power of 25W and capable of working on all standard international channels must be fitted.

The radio must have a masthead antenna.

An emergency antenna must be carried.

An external cockpit extension speaker should be fitted to the set, or a handheld VHF capable of being charged at sea carried.

Continued over

A handheld VHF transceiver: With min 5w output power, watertight or with waterproof covers. (It is recommended the handheld receiver should have Digital Selective Calling (DSC) and be equipped with GPS.)

Passive Radar Reflector

Permanently mounted in, or capable of being hoisted to, a position at least 5m (15 feet) above deck.

Octahedral circular sector plates of minimum diameter 300mm (12”), or octahedral rectangular plates of minimum diagonal dimension 400mm (16”).

Non-octahedral reflectors must have a documented minimum RCS (radar cross-section) of not less than 10m². (Smaller cylindrical reflectors do not meet the RCS requirement).

Where fitted a Radar Target Enhancer does not replace the requirement for a passive radar reflector.

AIS (Automatic Identification System)

An **AIS Transponder** is a mandatory requirement.

The AIS Transponder shall share the masthead VHF antenna via a low loss AIS antenna splitter or a dedicated AIS antenna that is a minimum of 380mm long, mounted with its base at least 3 meters above the water, and fed with coax cable that has a maximum 40% power loss.

An **AIS personal crew overboard beacon** for each crew member appropriately fitted to lifejackets for activation method of each device.

Flares

Must be pyrotechnic LAS III (SOLAS compliant), not older than the stamped expiry date, or four years from date of manufacture, for the end date of the Rally. Pyrotechnic flares to be stowed in a watertight container, with protective gloves and goggles, with as a minimum:

4 red hand held flares (2 of which may be eVDS)

2 buoyant orange smoke

These flares are in addition to any flares carried in liferafts and their supplementary service packs or grab bags.

Crew Overboard Recovery

Within reach of the helmsman for instant use:

1. A Danbuoy (pole and flag) or inflatable danbuoy, and attached to it a separate lifebuoy equipped with a whistle, drogue, a self-igniting light.

or

An MOB recovery module incorporating the above.

AND

2. One lifebuoy with a drogue, a self-igniting light and whistle attached, and a method to recover the person from the water.

or

A recovery sling capable of hoisting a crewmember aboard, which includes a buoyant line, buoyancy section (horseshoe) with no less than 90 N (20lb) buoyancy, with a self-igniting light and marine grade retro-reflective material.

AND in addition to 1. and 2. above

3. Throwing/heaving line (floating) 15–25m (50–75’) length, readily accessible to cockpit.

Continued over

At least one lifebuoy or recovery sling should have permanent (e.g. foam) buoyancy. Each inflatable lifebuoy and any automatic device must be tested and serviced at intervals in accordance with its manufacturer's instructions.

Every lifebuoy/recovery sling shall have the yacht's name on it and must be fitted with marine grade retro-reflective material.

See diagram on page 32

Bilge pumps

1. A securely fitted manual bilge pump operable from on deck
2. A securely fitted or portable manual bilge pump operable below deck
3. Multihulls shall have provision to pump out each hull, and all watertight compartments (except those filled with impermeable buoyancy).
4. All required permanently installed bilge pumps shall be operable with all cockpit seats, companionways and hatches shut.
5. All removable bilge pump handles shall be retained by a lanyard, to prevent accidental loss.

Emergency (High Capacity) Portable Pump: World ARC yachts shall have a portable high capacity (minimum 200l/min) electric or engine driven pump with sufficient hose to discharge from any compartment directly overboard or into the cockpit. This can be a combination of fixed and portable pumps combined to meet the above requirement. *It is recommended that yachts on all other events also carry an Emergency (High Capacity) Portable Pump.*

Navigation lights

Navigation lights must be fitted so that the yacht complies at all times with the International Regulations for Preventing Collision at Sea. Two independently wired/powered sets of navigation lights are required:

For example, the primary set (bow and stern lights)

For example, the secondary set (masthead tricolour), up to 20m

Battery operated navigation lights are not acceptable as the secondary set.

Spare lamps of correct wattage must be carried for non-LED navigation lights.

High powered search light

A watertight high-intensity heavy duty searchlight powered by the ships' batteries, instantly available in the cockpit for use on deck. The searchlight must be capable of continuous use. If rechargeable, the searchlight shall be capable of operating whilst being charged.

Spare bulbs for search light, or replacement light for LED.

Lifejacket/combined harness

There must be a suitable quality lifejacket/combined harness provided for each member of the crew or a permanent buoyancy jacket for children weighing under 40kg (88lb).

Where national flag regulations require inherently buoyant PFDs to be carried, an offshore inflatable lifejacket/harness must also be carried.

Each lifejacket must have:

- i. A whistle
- ii. A self-igniting light
- iii. Be marked with the yacht name (or lifejacket owner's name)

Continued over

- iv. Retro-reflective tape
 - v. A crotch (or thigh) strap
 - vi. A sprayhood/face shield
 - vii. An AIS personal crew overboard beacon for each crew member
 - viii. A 2m (6'6") safety line with self-closing hooks at each end, and an intermediate self-closing hook (a '3 clip safety line')
- Spare re-arming kits and gas bottles appropriate for each make of lifejacket onboard must also be carried.

Jackstays and Clipping Points

- Jackstays/jacklines along port and starboard side decks and elsewhere as necessary to enable a crewmember to move readily between the working areas on deck and the cockpit(s) with the minimum of clipping and unclipping operations
- Clipping points attached to through-bolted or welded deck plates, or similar, in positions close to the helm, and to enable crew to clip on before coming on deck, and unclip after going below.

Heavy equipment

All heavy equipment (i.e. anchor, batteries, gas bottles and stoves) must be firmly secured to prevent damage from possible knockdown or capsize.

The following equipment must also be fitted/carried:

- A safety equipment location chart in durable waterproof material, visible for crew and clearly marked with the location of principal items of safety equipment.
- Emergency grab bag (for suggested contents, [see Appendix 1](#)).
- Navigational charts (not solely electronic), and pilots for the route.
- A recognised secondary or alternative method of navigation.
- Securely fitted taut double lifelines/guardrails around the entire deck.
- Anchor of sufficient weight plus a suitable combination of chain and rope.
- Fire extinguishers (at least two), suitable for size of boat and within service date.
- Fire blanket (secured near the galley).
- Companionway hatches/washboards to be capable of being secured shut independently and with lanyards (to prevent accidental loss when removed for access or with the main hatch open). Doors should be capable of being secured when open or closed.
- Bungs or softwood plugs – securely attached/stowed adjacent to each fitting to enable any through hull fitting (below and above waterline) to be closed off.
- A watertight high powered torch/flash light with spare batteries and bulbs.

Mandatory Equipment Continued...

- Emergency tiller capable of being fitted to the rudder stock except when there are two methods (for example tiller or wheel) of controlling a rudder, neither of which shares components with the other except for the rudder stock.
- A proven method of emergency steering with the rudder disabled.
- Hacksaw and spare blades, bolt croppers or a suitable method for cutting-away rigging.
- Medical kit and manual suitable for offshore/Ocean passages.
- Fog horn.
- Buckets (at least two) of stout construction and fitted with lanyards; capacity to be at least 2 gallons (9 litres).
- Echo sounder and boat speed/distance log.

Section Two - Recommended Safety Equipment

It is highly recommended that the following equipment be carried:

- One complete spare lifejacket.
- Dinghy and oars.
- Second anchor, plus a suitable combination of chain and rope.
- Sextant; and nautical almanac or tables for astro navigation.
- Storm jib.
- Storm trisail or 3rd reef in mainsail.
- A 1m² (11ft²) area of highly-visible pink, orange or yellow capable of being displayed on the coach roof and/or deck.
- A floating flashlight to be carried at night by each crew member.
- Mast-step. The heel of a keel-stepped mast should be securely fastened to the mast-step or adjoining structure.
- Drogue or Sea Anchor. A drogue (for deployment over the stern), or alternatively a sea anchor, or parachute anchor (for deployment over the bow).
- Personal 406 MHz Locator Beacon (PLB) for each individual crew member.
- It is highly recommended that each person on board carries a knife at all times whilst at sea.

Appendix 1 - Recommended Grab Bag Contents

If your liferaft is packed for less than 24 hours, you must have a grab bag for each liferaft with the additional contents (see table on page 26).

The recommended contents are in addition to the items required by the Safety Equipment Requirements.

The grab bag offers a suitable place to stow items where they will be quickly found and readily carried to the liferaft. A grab bag should have inherent flotation, be marked with the name of the yacht, and have a lanyard and clip.

Recommended Grab Bag Contents:

- Waterproof hand-held VHF transceiver
- Watertight flashlight with spare batteries (and bulb if not LED)
- Portable solar charger for phone / flashlight
- Second EPIRB
- Two red eVDS
- First aid kit, including sunscreen and medical supplies for pre-existing medical conditions
- Graduated plastic drinking vessel for rationing water
- Two safety can openers (if food or water carried is in cans)
- Additional drinking water in a dedicated and sealed container, or a hand operated desalinator, plus containers for water
- Additional high energy food
- String, polythene bags, seasickness tablets
- One daylight signaling mirror and one signaling whistle
- Two "Cyalume" sticks or two watertight floating lamps
- Second sea anchor and line
- Last minute ditch bag (see page 35)

Note: If your liferaft contents require upgrading with extra rations or equipment to meet the ISO 9650 Pack 1 over 24 hours or SOLAS A content lists (see table on page 26) then you will need a grab bag for this equipment too.

Appendix 2 - Recommended Crew Training

The skipper and at least one crew member should have undertaken training within the five years before the start of the Rally in both theoretical and practical sessions in the following training topics. World Sailing recommends that all crew members do likewise.

Recommended Training Subjects:

- Giving Assistance to Other Craft
- Personal Safety Gear, theory and practice
- Care and Maintenance of Safety Gear
- Fire Precautions and Firefighting, theory and practical
- Crew Overboard Identification and Recovery
- Hypothermia, Cold Shock and Drowning
- Crew Health
- Marine Weather
- Heavy Weather - crew routines, boat handling, drogues
- Storm Sails
- Damage Control
- Search and Rescue Organization
- Pyrotechnics and Signalling Gear, theory and practical
- Emergency Communications, theory and practical
- Liferafts and Abandon Ship, theory and practical

Video Guides: Safety

We have produced detailed video guides on the WCC Safety Requirements, ideal for you to watch in support of the information in this Rally Handbook.



Click or scan
the code

The playlist includes an on deck and below deck walkthrough of required and recommended items, a focussed seminar on liferafts, Q&A with Ocean Safety, and details of recommended crew training.