



Safety Consultation

Vic-Maui 2016 Preparation Seminar



Safety Preparation

- Our Goal is to Take Mystery out of Preparing for an Ocean Race
 - Remove obstacles that deter entry
- Mentors
 - Advise on all aspects of Preparation
 - Simplify the many decisions required of skippers
- Inspectors
 - Advise on how to comply with safety requirements
- Safety Consultation
 - Open to innovation, but need to demonstrate that new ideas will work
 - NOT open to poorly thought out approaches and minimal attempt at compliance
 - Completion of consultation with inspector does not alleviate responsibility

The safety of a yacht and her crew is the sole and inescapable responsibility of the person in charge. The responsibility for a boat's decision to participate in a race or to continue racing is hers alone.



Consultation Process

- Start Preparations Now
- By March 31/16 – Make Appointment for Consultation by email or on-line
- Complete Consultation by May 30/16
 - Some documents must be filed with RC
- Submit signed Appendix B by Jun 19/16
- Confirmation of completion of any remaining deficiencies prior to Start

Safety Framework

- Notice of Race and Appendix A
- ISAF 2014-2015 Offshore Special Regulations
- NOTE: Appendix B is to assist, it is not the Rule





Start Preparations Now

- Crew training, watch captain experience
- Storm sails – buy or borrow, size requirements
- Emergency steering system
- Liferaft storage location
- Communication Gear (SSB or Satphone)
 - Robust interface with e-mail
- Batteries – sealed type, well-secured
- Clipping Locations – pad-eyes, jacklines



Safety – Be Prepared

- Shit Happens! – Outcome depends on how well You are Prepared



- Important Items - Based on Risk
 - Well Found Boat and Crew
 - Keep Crew On the Boat
 - Keep Water Out
 - Stop Gear from Flying Loose
 - Ready to deal with Major Damage
 - Being Seen
 - Ready to Abandon Ship



Well Found Boat and Crew



Acceptance of Entry

- Boats have to be suitable for the task
 - OSR 3.01 – Strongly built, watertight and capable withstanding knockdowns
- Boats must meet minimum Stability
 - OSR 3.04 – ORC Stab Index of 115 or equivalent
- Skippers, watch captains have appropriate experience
- Ability to get Insurance for an ocean race
- Fast enough to get to Hawaii in 21 days (eg; PHRF of 140 or less)

Construction Standards

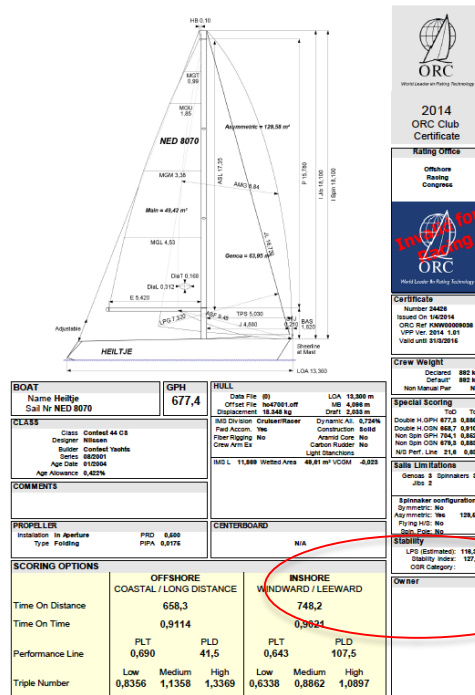
- OSR is written from point of view that boats are built to ISO 12215 and 12217
 - With a CE mark, scantlings, stability, cockpits, hatches, drains, lifelines are almost always compliant with OSR.
- Older, non-European boats usually built to ABS standards and are mostly compliant
- Pre-1981 boats, small sportboats, or one-off designs are most problematic



3.04 Stability

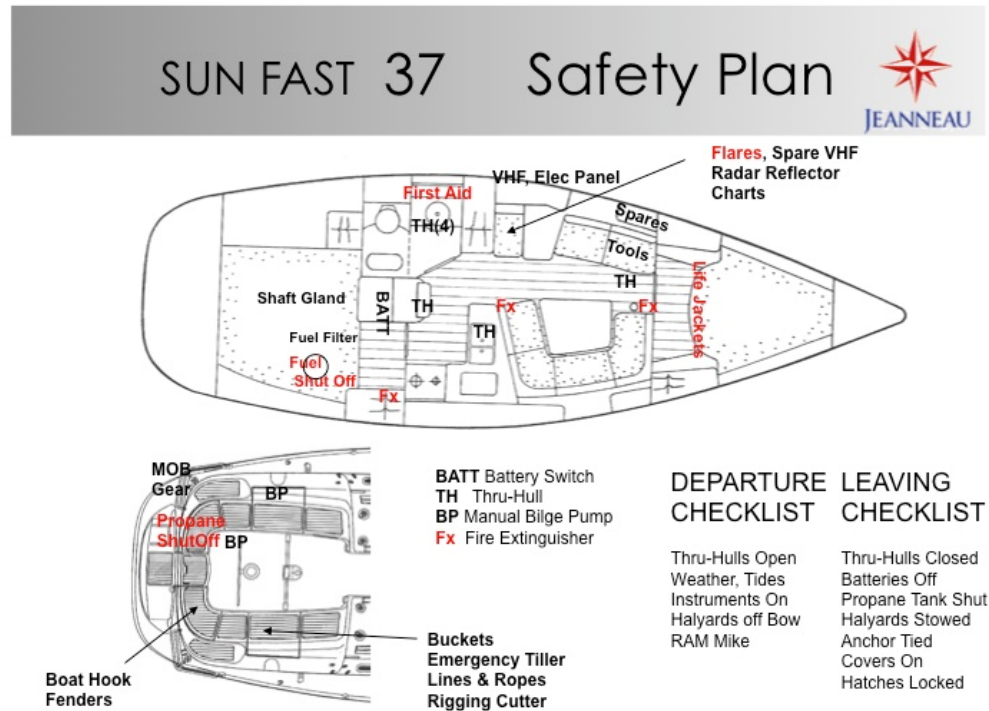
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- Proof of Compliance with Stability Index of 115
 - Confirmation from ORC certificate
 - ISO 12217-2, or a professional Naval Architect



4.12 Equipment Location Chart

- Waterproof, Displayed in Main Cabin
- One for safety, one for provisions



Sec. 6 Training

- 2/3 of crew with 2 day-ISAF Safety at Sea training – would prefer to have 100%
- Min of 2 to have Senior First Aid certification
- Certified practice of Quick Stop MOB drill

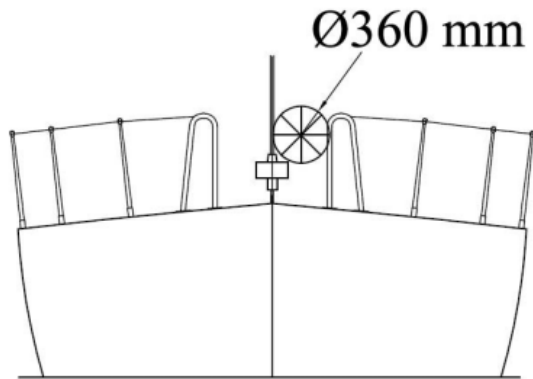




Keep Crew on the Boat

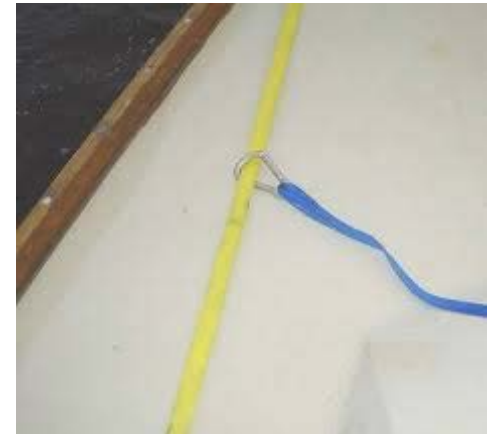
3.14 Lifelines

- Should be uncoated stainless wire – Taught
- Check diameter requirements
- Height, Spacing of stantions, Openings



4.04 Jackstays and Clipping Points

- Strongly attached, 3/16 1x19 uncoated wire, or 4500 lb dyneema webbing
- Clipping points: helm, winches, mast
 - 2/3 of crew on deck – not relying on Jacklines



4.22 Deployable Gear

- Lifebuoy with whistle, drogue, self igniting strobe - Within reach of helmsman
- 2nd Lifebuoy or Lifesling
- Labelled with Boat Name



Sec. 5 Personal Gear

- PFD to ISO 12402, Harness to ISO 12401
 - Whistle, reflect tape, crotch strap, spare inflation cylinder, SOLAS light, safety line (tether) per specs
 - Sprayhood, PLB are recommended



Tested in presence of
Skipper

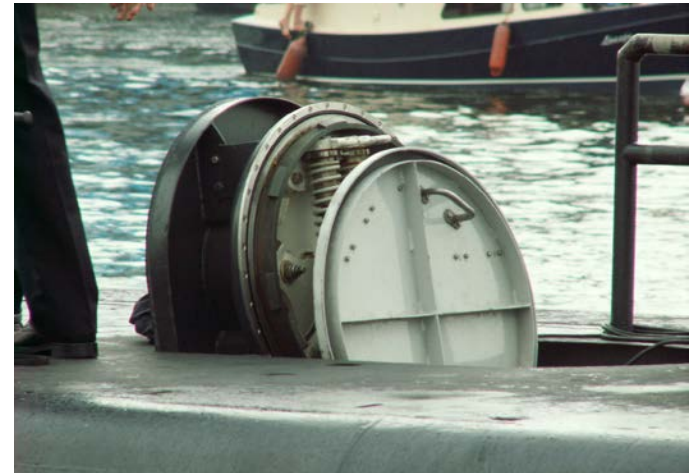


Keep Water Out



3.08 Hatches

- Size and location
 - Forward of max beam, coach-roof, <math><110\text{ in}^2</math>
 - Above water at 90° and and firmly shut at 180°
 - Location and Labeling of inward openers



3.08.4 Companionway

- Operated and secured from inside and outside
- Not extend below local sheerline



3.23 Bilge Pumps

- 1 Pump operated below & 1 from cockpit
- Handles on lanyards or permanently attached
- Discharge independent of cockpit drains
- Access to pick-up or strum box



4.03 Thru Hull Plugs

- 1 tapered, wood plug for each through hull attached or stowed immediately beside





Keep Things from Flying

2.03 b) Heavy, Moveable Items Secured

- What goes flying if boat goes 90°
- Engine, Floorboards, batteries, stoves, fuel bottles, fuel and water tanks, anchors and chain, toolboxes, locker covers



3.12 Mast Step

- Bottom of mast fastened to mast step



3.22 Handholds below

- Adequate, strong hand-holds to allow movement
- Crew safety plan for working below deck
 - Galley, nav Station, head, making repairs





Deal with Damage



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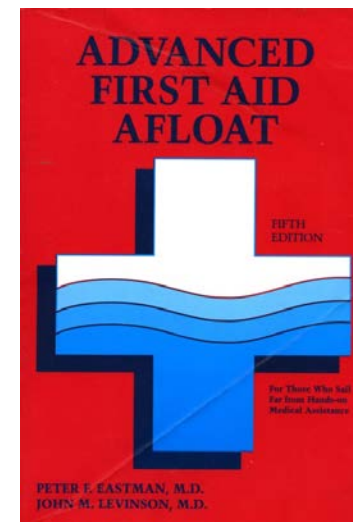
4.05-4.16 Boat Safety Gear

- The good seamanship items:
 - Spare nav lights, Handheld VHF & emerg antenna, Anchors, Fire Extinguishers, Flashlights, Tools & Spares, Rigging Cutter, Mast Climbing Gear, Foghorn, Heaving Line, Cockpit Knife
 - Charts and Light List – paper for bail-out ports



4.08 First Aid Kit

- Based on likely conditions, duration of the passage, and number & condition of crew
 - Check Info for Racers for recommendations
- Carry 1 of 4 specified manuals



4.15 Emergency Steering

- Spare tiller AND alternate means of steering for rudder loss
 - Room for innovation, but demonstrate it works
 - Contemplate upon loss of directional stability



Sea Brake



Being Seen



3.29 Communication Equipment

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- 25W VHF with DSC and MMSI
- Strongly recommend 125 W SSB radio with permanently installed antenna and ground
- If no SSB, then 2 “approved” Sat Phones
- Tested in bad conditions, proven Email integration

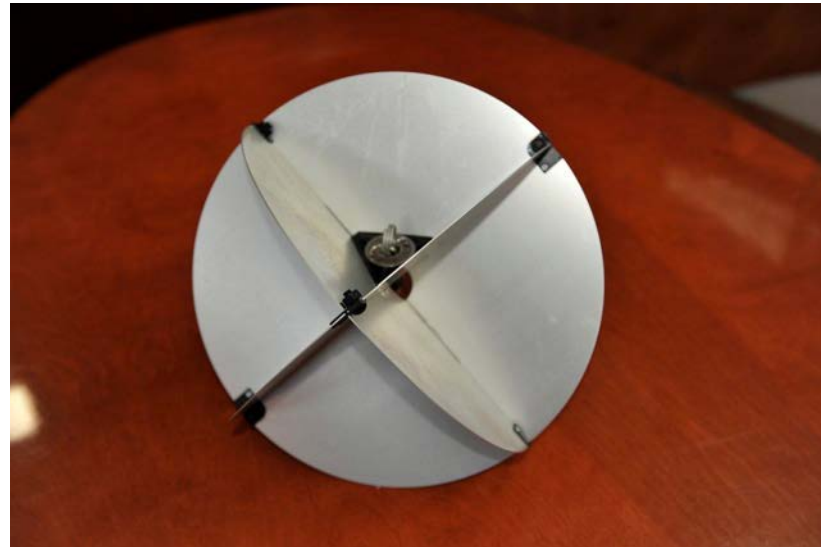


3.29 (f) AIS

- Transponder or Transceiver, Not just Receiver
- No specification whether Class A or Class B
 - Class A – always on, not hideable by commercial traffic
- Still no guarantee that you will be seen
 - No one may be watching

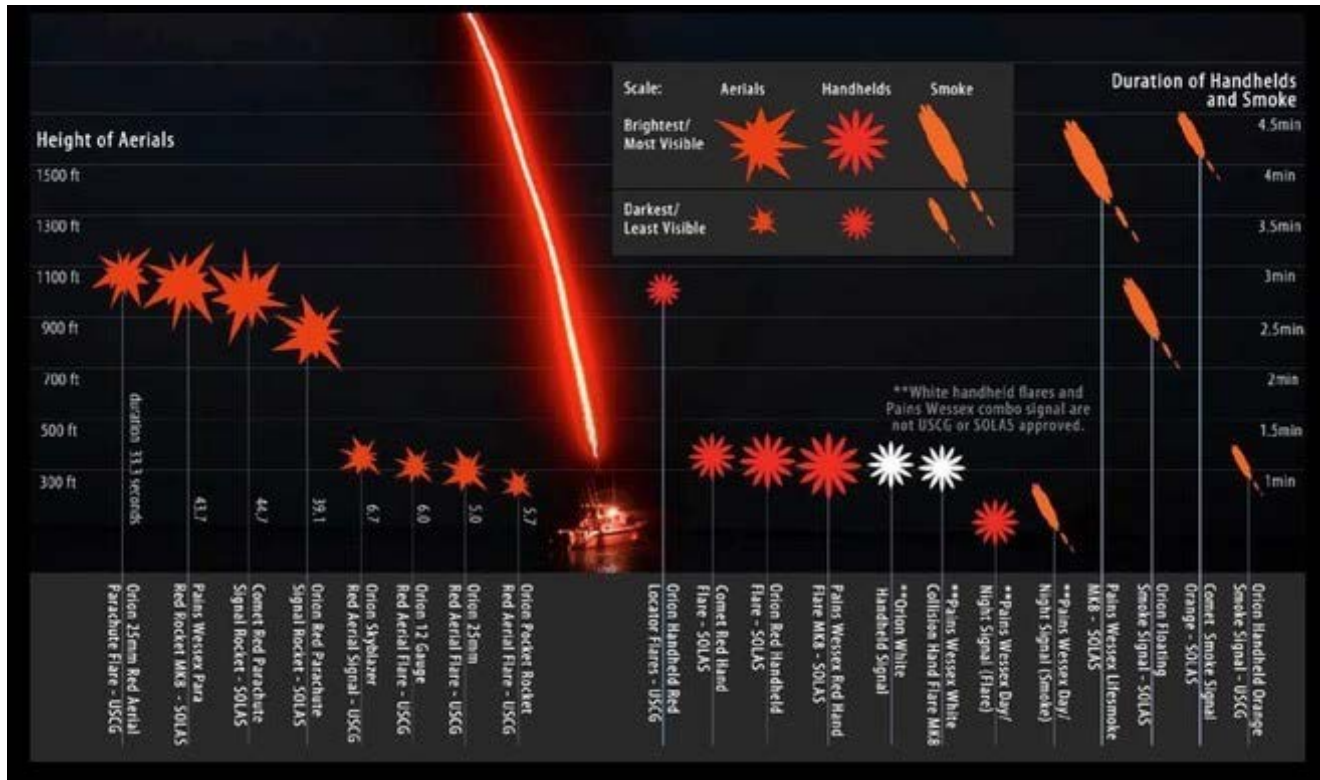
4.10 Radar Reflector

- Octahedral – Circles dia. $>12''$; Cross section $> 2 \text{ m}^2$
- To fly or not to fly? If so, 13 ft above WL



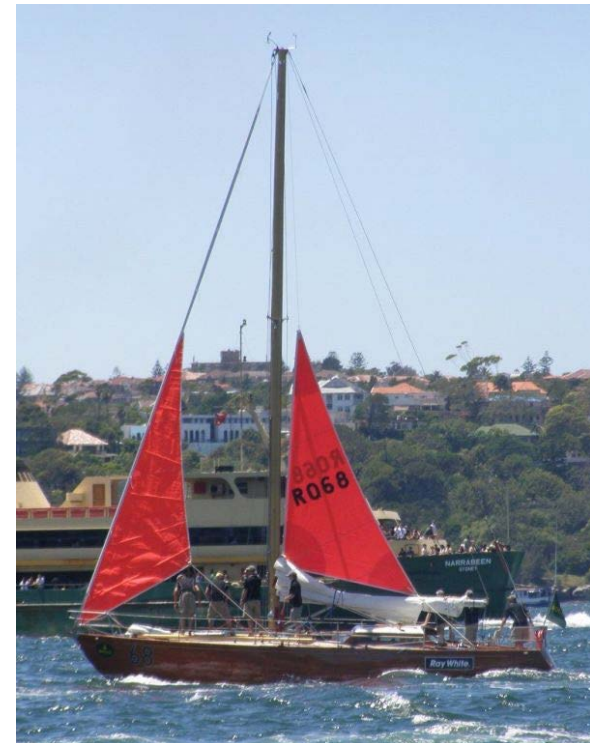
4.23 Pyrotechnics

- **SOLAS** LSA Chapter III
 - 6 red parachute, 4 red handheld, 2 orange smoke



4.26 Storm Sails

- Storm Trysail and Storm Jib with sail numbers
- Visibility requirements
- Sheeting Positions
- Demonstrate setting them





Ready to Abandon Ship

4.19 EPIRB

- Registered, tested, Battery expiry > Aug 2016
- Water AND manually activated
- Emergency contact NOT V-M organizers



4.20 Liferaft

- Certification and Recently Serviced to:
 - SOLAS; ISO 9650 OSR (ORC); ORC (ISAF);
 - 24 hr Pack (B Pack or
 - Insulated floor recommended
- Storage Location:
 - **BEST: Canister on deck, transom or cockpit**
 - OK: In a watertight or self draining locker;
 - NOT: Below (only if < 40 Kg and boat > 15 yrs. old)
- Permanently tethered
- Deployment within 15 sec.



4.21 Grab Bag

- Recommended Contents
- Need not duplicate items in Liferaft pack





Environmental Stewardship

- Rule 50 – Boats shall not intentionally put trash in the water
 - Vic-Maui exceptions:
 - Organic food waste
 - Bio-degradable bands from spinnakers
- Illegal to discharge plastic anywhere
 - You will see why when at sea
- Control boat discharges
 - Keep bilge clean, use absorbent sheets
 - Eco-certified cleaners



Questions

We encourage questions:

1. Your mentor
2. Email to tc-chair@vicmaui.org