

Implementing an Offshore Safety and Preparedness Plan

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Creating Safe Offshore Events

1. Start with a Safety Ethos for the event
2. Implement Pre-departure Training
3. Select an Equipment List
4. What Skipper/crew/yacht qualifications, if any?
5. Pre-departure Inspections – make them useful
6. Communication plan appropriate for the event
7. Emergency Action Plan, anticipate problems
8. Post Race Inspections? All? Some? None?
9. What can we learn from the sailing incidents of the last three years?

Whatever your Event...

Have an appropriate safety plan

Classic mega-yachts in showcase event



Special Proximity restrictions for expensive, fragile boats



Assorted race boats starting a long ocean race



Category 1 requirements for long ocean passages



130 dinghies on a single start line

Gate starts at 505 Worlds minimize collisions and recalls



1. Start with a safety ethos

- Make it fun by making it safe.
- Anticipate dangerous situations for those who have not been there without talking down to those who have the experience.
 - Pacific Cup, the “Fun Race”, encourages new racers with “Sandbox Sailing” seminars
 - Consider a “Cruising Division” – all safety requirements, no rating/measurement requirements



Start with a safety ethos

- Keep safety part of the discussion during all contact with participants.
- Make it the expectation, not the exception



Bermuda Race: **Ambassador Program** to help first time participants with the planning and preparation. Ambassadors are CCA/RBYC members who have prepared their own boats for this race. They **understand** what it takes to compete and are **enthusiastic** to share their insights.

2. Implement Pre-departure Training: US Sailing Safety at Sea Training

- Generally required before Cat 1 races
 - Newport-Bermuda
 - Transpac
 - Pacific Cup
- Classroom/lecture seminars
- ½-day and 1-day
- Locally organized by YRA or YC or OA

US Sailing Safety at Sea Hands-On Training

- Two-day classes including pool exercises
 - Life rafts
 - Inflatable life jackets
 - Hypothermia protection



Hands-on Training – practice before you need it

Flare Handling



Flooding Plan and Tools



Hands-on Training – use before needed

Fire Plan

- OSR 4.05.4 Fire Blanket/**Fire Plan** –
The OSR requires “A fire blanket adjacent to every cooking device with an open flame”
- Your event may **amend** this requirement
 - No fire blanket required, but each boat should have a written and documented **Fire Plan** to be reviewed by the Safety Inspector.



“Event” Pre-departure Training

Event/YC created training specific to conditions

- Local experts present specific event experience with an **emphasis on successful voyages, preparation, tips and tricks** from experts.
- Moderators with prior event experience lead break-out sessions to encourage individual questions/answers.



- Pacific Offshore Academy: four ½ day seminars with local experts in formal presentations and informal break-out sessions
- Single-handed Transpac seminars
 - Monthly evening meetings prior to race
- Transpac “First Timers” seminar



“Event” Pre-departure Training

- Event/YC created training specific to conditions similar to Pacific Offshore Academy
 - Knowledge Base on website with presenters’ content accessible to all



Pacific Cup Knowledgebase

Categories (80 presentations):

Planning

Boat Selection

Clothing

Collections of Advice

Communications

Crew selection

Driving

Electrical

Emergency Situations

Emergency Steering

Food

Getting Back

Inspections

Insurance

Medical

Navigation

Navigation Systems

Personal Welfare

Rigging

Safety Gear

Sails

Watch Systems

Weather and Environment

3. Select Equipment List: How much gear is enough gear to be safe?

1. Select either ISAF Offshore Special Regulations or SER:
 - A. ISAF + US Prescriptions = 200 pages
 - B. US Safety Equipment Requirements = 6 pages
2. Select a category
 - A. ISAF: Category 0, 1, 2, 3, 4, 5, 6
 - B. US SERs: Ocean, Coastal, Nearshore
3. Modify list to suit specific event

ISAF Offshore Categories

ISAF + US Prescriptions = 200 pages

- 0 Transocean, cold, completely self-sufficient for extended periods , serious emergencies met with no outside assistance.
- 1 Long Distance, well offshore, completely self-sufficient, no expectation of outside assistance.
- 2 Extended duration not far removed from shore, high degree of self-sufficiency required.
- 3 Across open water, mostly protected or close to shore.
- 4 *Short races close to shore in warm, protected waters, daylight.*
- 5 *Short races, close to shore, warm, protected, adequate shelter & rescue, daylight only.*
- 6 *Short, close to manned shore base, warm, protected, observers & rescue boats available.*



ISAF OSRs
200 page booklet

US Sailing SER Categories

- US Safety Equipment Requirements
 - 6 pages
- Three categories:
 - US Ocean
 - US Coastal
 - US Nearshore
- What do you do with races that are sorta Coastal and sorta Ocean?

[illegible]

US Sailing
Safety Equipment Requirements
6 pages

US Safety Equipment Requirements

Section Name	#	Requirement	Ocean	Coastal	Nearshore
Overall	1.1	The Minimum Equipment Requirements establish uniform minimum equipment and training standards for a variety of boats racing the safety of a boat and her crew is the sole and inescapable responsibility of a boat may be inspected at any time by an inspector or measurer of the	Long distance races, well offshore, where rescue may be delayed	Races not far removed from shorelines, where rescue is likely to be quickly available	Races during the day, close to shore, in relatively protected waters
Overall: Responsibility	1.2	An equipment required shall function properly, be regularly checked,	x	x	x
Overall: Inspections	1.3	A boat's heavy items such as batteries, stoves, toolboxes, anchors, chain and	x	x	x
Overall: Equipment and Knowledge	1.4	A boat shall be strongly built, watertight and, particularly with	x	x	
Overall: Secure Storage	1.5	A boat's hull, including, deck, coach roof, windows, hatches and all other	x	x	x
Overall: Strength of Build	1.6	Hull construction standards -	x		
Overall: Watertight Integrity	1.7	Scantlings with plan review approval -	x		
Overall: Scantlings	1.8	A boat's companionway(s) shall be capable of being blocked off to main	x	x	
Hull and Structure: Hull Openings	2.1.1	Each crewmember shall have a fire jacket that provides at least 33.7lbs	x	x	
Safety Equipment: Personal	3.1.1	A boat shall have a throwing sock-type heaving line of 50' (15m) or greater of	x	x	x
Gear: Man Overboard	3.7.3	A boat shall have a permanently installed 25-watt VHF radio connected	x	x	
Safety Equipment: Emergency	3.8.1	A boat shall have a permanently mounted magnetic compass	x	x	x
Safety Equipment: Navigation	3.19.1	A boat shall have the ability to display sail numbers and letters of the size	x		
Safety Equipment: Damage Control	3.21	A boat shall carry one anchor, meeting the anchor manufacturer's	x	x	x
Gear: Anchoring	3.23	A boat shall have a mainsail reefing capable of reducing the luff length by	x	x	
Sails: Mainsail Reefing	3.33.1	A boat shall not be rigged with any halyard that requires a person to go	x	x	
Rigging: Halyards	3.35	A boat shall carry 1 gallon (3.785 liters) per crewmember of emergency	x		
Supplies: Water	3.37	A boat shall carry adequate inflatable life raft(s) designed for saving life at	x		
Gear: Life Rafts	3.39	A boat's crew shall be aware of multiple methods of steering the boat	x	x	
Skills: Emergency Steering	4.1	Annually, two-thirds of the boat's racing crew shall practice man-	x	x	x
Skills: Man Overboard	4.2	At least 30% of those aboard the boat, but not fewer than two members of the	x		
Skills: Safety at Sea Training	4.3.1	At least 30% of those aboard the boat, but not fewer than two members of the	x		
Skills: Safety at Sea Training	4.3.2			x	

A total of 105 lines and 6 columns in an Excel spreadsheet, easily customizable to meet requirements of any event – US Ocean, US Coastal, US Nearshore

Modify Equipment List to suit the event

- Life rafts required for coastal race?
 - If different from other local races, make clear
 - Don't have irrelevant requirements that discourage racers if not necessary for conditions

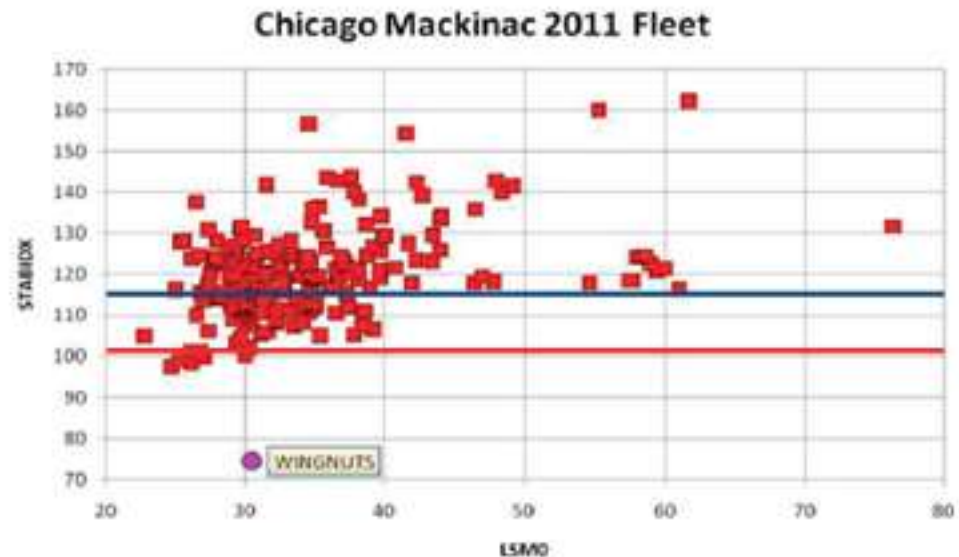
Example: Sydney-Hobart Race and others require every boat to check in before the start with storm sails set and trimmed.





4. Skipper and/or yacht qualifications?

- Should we be more concerned about the boat, the skipper, or the crew?
- How do you decide how good is good enough?



A scatter graph showing *WingNut*'s actual SI in relation to the rest of the Mackinac fleet: the red line represents the new required standard for the Mac; the blue line is the limit for many ocean races

Skipper and/or yacht qualifications?

- Mandatory sail of required length,
 - with intended crew? How many? Only skipper, mate?
 - Bermuda Race is *Invitational* and “may require the Captain, Navigator and/or Watch Captain(s) to provide evidence of offshore experience.”
 - Single-handed Transpac: requires 400 mile qualifier
 - 200 miles out
 - 200 miles back



5. Pre-departure Inspections

- Make them useful to entrant
 - A. Provide consistent check list to each boat
 - B. Volunteer inspectors should be educators, not cops
 - C. Allow crew time to fix omissions
 - D. Address how to solve some of the more vexing requirements in excellent pre-departure seminar presentations.
 - Life raft, emergency rudder, companionway closures, mast butt security, jack lines



A. Pre-departure Inspection Check Lists

Make them useful to entrant

- Provide consistent check list to each boat.
- Give entrant plenty of time to review and complete assembly of required items.

2014 Pacific Cup Concise Inspection Checklist Pacific Cup Required Equipment

In all cases, the language of the OSR, SI's and NOR shall be the sole governing documents. This checklist is just a tool and reminder and does not modify any requirement.

The full Pacific Cup OSR document with detailed checklist is downloadable from:
<https://pacificcup.org/osr/osr.html>

The Pacific Cup Equipment List is downloadable from:
<https://pacificcup.org/sites/default/files/2014pecel.pdf>

Provide the following to your inspector two weeks prior to inspection:

1. Size and type of primary anchor, chain and rode.
2. Size and type of secondary anchor, chain and rode.
3. Liferaft manufacturer, model and year of construction.

To prepare for inspection:

1. Storm sails bent on, fully hoisted if wind permits.
2. Emergency steering gear in place. Prepare for demonstration if requested.
3. Overboard gear set up.
4. Liferaft in place or stowed as for race.
5. Emergency running lights rigged (if portable).
6. Ready to demonstrate pumps with water in bilge or bucket
7. Flares displayed.
8. All required personal gear displayed.
9. Anchor(s) displayed with chain and rode measurable.
10. All required documents in binder or folder with copies for inspector.
11. Paper copy of Chart No.19359 for Kaneohe Bay, latest available edition

Inspection Checklist for Pacific Cup 2014

Yacht name _____ Yacht type _____
Inspection date _____ Inspection location _____
Inspector _____ Skipper or yacht representative _____

General

_____ Ballasted, self-righting, self-bailing, watertight integrity
_____ 24 ft LOA Pacific Cup minimum.

Storm sails and halyards

Sails - must have two of the following three:

1. Storm Trysail
Maximum area 17.5% of mainsail luff x foot.
Mainsail luff _____ mainsail foot _____ mainsail area x 0.175 _____
Storm trysail luff _____ storm trysail foot _____ storm trysail area _____
_____ Sheeted independently of boom

B. Pre-departure Inspectors are Volunteers

- Safety Inspectors are Coaches/Mentors
 - Knowledgeable
 - Experienced
 - Helpful
 - Resourceful
 - Safety Conscious
 - NOT Wimps
- Inspection
 - Opportunity to go through boat with experienced racer
 - Can help with ideas
 - Can help prioritize
 - Can do a “pre-inspection”
- What if the boat miserably fails?



C. Allow Crew time to fix Omissions

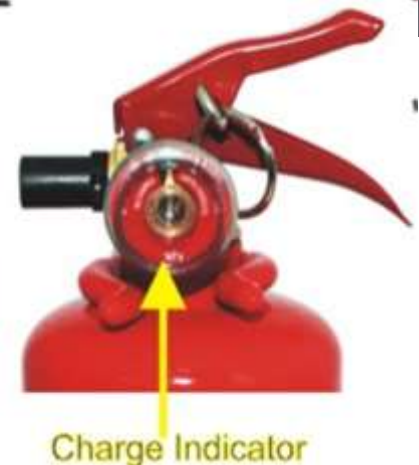
- Start inspections early
- Tell owner to have all required gear clearly available.
- Be helpful if something is missing or owner doesn't understand need.



D. Address vexing requirements in pre-race seminar presentations

Some common problem areas

- Liferaft
 - Not stored properly
 - Does not meet SOLAS/ISAF specs
 - “But it passed 10 years ago!”
- PFDs – do not include whistle, strobe or other required items.
- Tethers – do not have “colored flag”
- Fire Extinguishers – incorrect weight
 - Not required quantity
 - Not fully charged
- Lifelines
 - Incorrect tension
 - Covered
- Anchoring systems
 - Anchors not the correct size
 - Primary and/or secondary chain underweighted
 - Line is not continuous or is undersized



Remind owner: The inspector does not assume responsibility for a safe passage

- The safety of a yacht and her crew is the **sole and inescapable responsibility** of the person in charge who must do his best to ensure that the yacht is fully found, thoroughly seaworthy and manned by an experienced crew who have undergone appropriate training and are physically fit to face bad weather. He must be satisfied as to the soundness of hull, spars, rigging, sails and **all gear**. He must ensure that **all safety equipment** is properly maintained and stowed and that the crew know where it is kept and how it is to be used. He shall also nominate a person to take over the responsibilities of the Person in Charge in the event of his incapacitation.

ISAF OSR 1.02.1

Stress Self-sufficiency: Single-handed Transpac Dismasting Recovery

SSS TransPac Notice of Race:

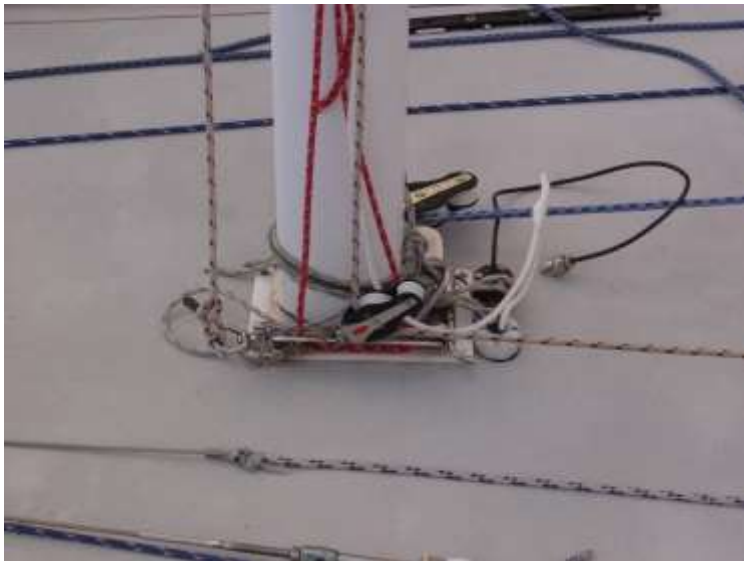
- 7.1 “Yachts must be fully independent and capable of carrying out emergency repairs at sea. Entrants have no right to expect or demand a rescue operation be launched on their behalf.”
- 7.2 Full responsibility for any mishap will rest with the entrant.



Ruben Gabriel spent 27 days crossing from SF to Hanalei – 12 of them under jury rig – and finished with no mast and without outside assistance.

More Self-sufficiency: Moonshine in the 2002 Pacific Cup

Shortly after roll call, Moonshine, a custom 26', had her mast break about 6' off the deck. No outside assistance was necessary.



Shortened mast required all standing rigging to be shortened as well, while allowing sails to be hoisted.

6. How are you going to communicate with your fleet (for safety and standings)?

- Coastal races could use VHF alone.
- Offshore races can use:
 - SSB (old school)
 - Iridium (easy)
 - SEND devices (cheap)
 - Trackers (multipurpose)
- Roll call – mandated check-in times, optional chat?

7. Emergency Action Plans

- Anticipate problems specific to event & fleet
 - Chain of command, communication
 - Official *always* available (Aegean example) or a phone bank of qualified volunteers who know what to do.
 - List of phone numbers for all “flags” and Coast Guard.
 - Readily available list of all vessels
 - Iridium phone numbers
 - Crew list, contact information
- Contact the local RCC(s) and introduce yourself

8. Post Race Inspections

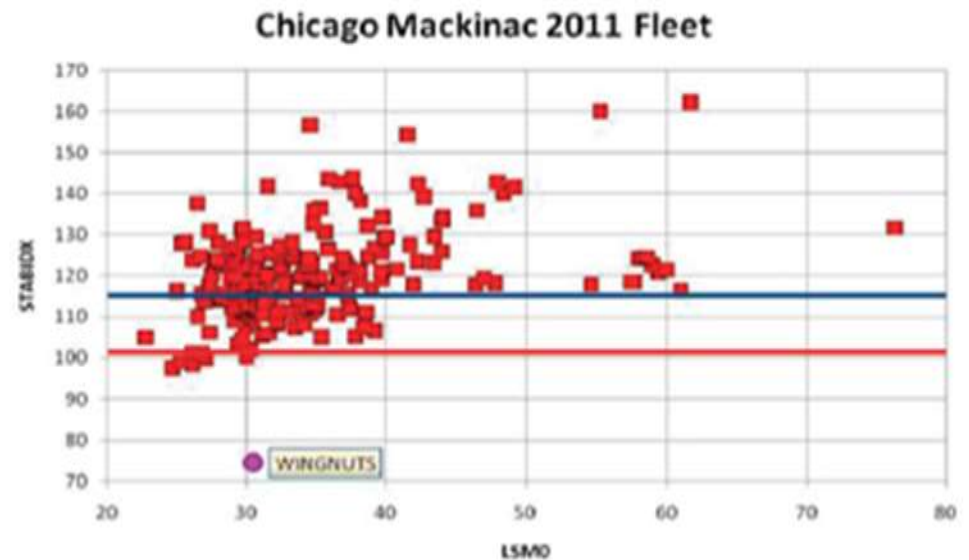
- How do you enforce equipment compliance?
 - Spot check?
 - First 5 finishers?
 - None (threat only, but not actually done)?
- Penalty if infringement of any rule, only serious infraction?
 - Is the absence of a life raft or trysail or emergency navigation lights the same?

9. Lessons Learned

- WingNuts
 - A good crew cannot make up for the wrong boat
- Rambler 100
 - Boats cannot lose stability at sea
- Low Speed Chase
 - Understand when and why waves break in shoals
- Aegean
 - Keep a lookout at all times
- Uncontrollable Urge
 - Declare a Mayday early in a crisis

WingNuts

A good crew cannot make up for the wrong boat



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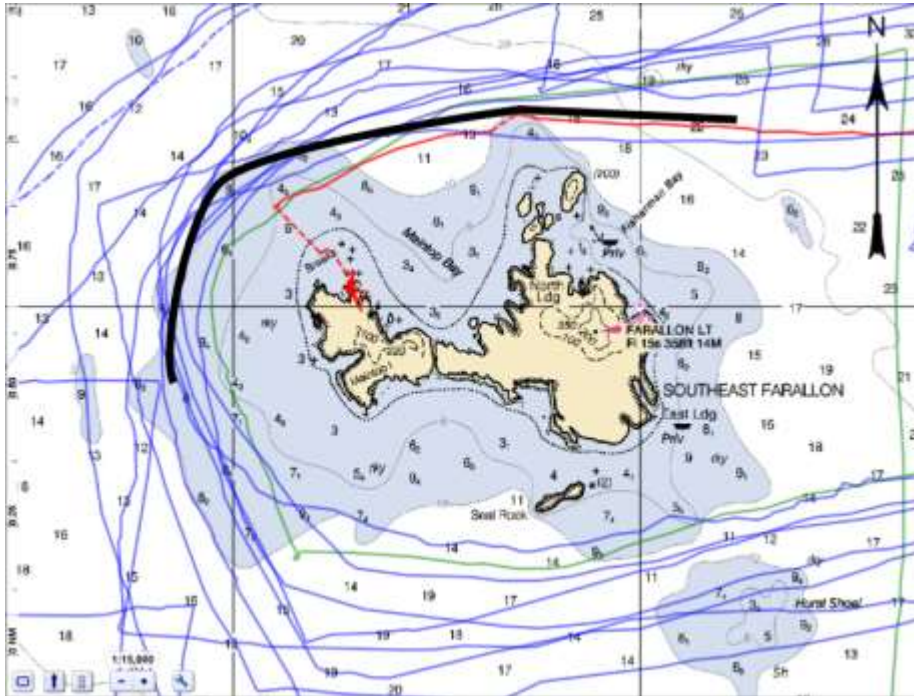
Rambler 100

Boats cannot lose stability at sea



Low Speed Chase

Understand when and why waves break in shoals



Aegean

Keep a lookout at all times



Uncontrollable Urge

- Declare a Mayday early in a crisis



Your Opinion Matters

Please “**check-in**” to this session on the Sailing Leadership Forum app
and complete the session survey

Or

Complete one of the yellow survey forms in the back of the room and drop in the box

Thank you for attending this session

