



# BYC Mackinac Safety and Inspection Requirements Overview / Changes

*Note: This ppt/presentation is not a replacement for the official race SER. It is each team's responsibility to adhere to the actual SER regardless of any unintentional differences or miss-representations contained or expressed herein.*

# Agenda / Discussion Topics

## 1. Mackinac Race Safety Requirements (SER's)

- Overview / Background
- Equipment
- Crew Training

## 2. Inspection Process and Tips

- Pre-Race
- @ the Island
- Tips

## 3. Race Withdraws

- Process and Reporting



# SER Overview / Background

Key points:

- Background on SER's
- Minimal changes yr-2-yr
- Alignment with Chicago
- Required and Recommended



# SER Overview / Background



## World Sailing OSR Offshore Special Regulations

<http://www.sailing.org/specialregs>



## US Sailing SER Safety Equipment Requirements

<http://www.ussailing.org/safety/equipment-and-requirements/>

# World Sailing OSR's

- + Comprehensive
- + Informative
- + Broad Input
- + Derived from real world emergencies & fatalities

- Complex to decipher
- Address Cat's 0-6 (7)
- Multiple Appendices
- Over 70 pages
- Still some ambiguity



4u0,1,2,3	3.28.3	<b>Fuel Systems</b>
4u0,1,2,3	3.28.3 a)	All fuel tanks shall be rigid (but may have permanently installed flexible linings) and shall have a shutoff valve
4u0,1,2,3	3.28.3 b)	At the start a boat 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 8 hours
4u0,1,2,3	3.28.4	<b>Battery Systems</b>
4u0,1,2,3	3.28.4 a)	a dedicated engine starting battery when an electric starter is the only method for starting the engine
4u0,1,2,3	3.28.4 b)	batteries installed after 2011 shall be of the sealed type from which liquid electrolyte cannot escape
4u0,1,2,3	3.29	<b>Communications Equipment, GPS, Radar, AIS</b>
4u0,1,2,3	3.29.01	a marine radio transceiver with an emergency antenna when the regular antenna depends upon the mast
4u0,1,2,3	3.29.02	if the marine radio transceiver is a VHF:
4u0,1,2,3	3.29.02 a)	a minimum rated output power of 25 W
4u0,1,2	3.29.02 b)	a masthead antenna not less than 38 cm (15") in length and co-axial feeder cable with not more than 40% power loss
4u3	3.29.02 b)	a masthead antenna and co-axial feeder cable with not more than 40% power loss
4u1,2,3	3.29.02 c)	be DSC capable if installed after 2015
4u1,2,3	3.29.02 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
4u0	3.29.02 e)	a marine VHF DSC radio covering all international and US marine channels and meeting ITU class D
4u0	3.29.03 a)	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)
4u1	3.29.03 b)	<b>One hand-held satellite telephone, watertight or with waterproof cover and internal battery.</b>
4u0	3.29.04	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)
MoMu1,2,3,4	3.29.05	a hand-held marine VHF transceiver, watertight or with a waterproof cover. When not in use to be stowed in a grab bag or emergency container (see OSR 4.21)
**	3.29.06	a second radio receiver, which may be the handheld VHF in 3.29.5 above, capable of receiving weather bulletins
MoMu0	3.29.07	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 5.07);
MoMu3	3.29.08	a GPS
MoMu0	3.29.09	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.
MoMu0	3.29.10	an MF/HF marine SSB transceiver (GMDSS/DSC) with at least 125 W transmitter power and frequency range from at least 1.6 to 29.9 MHz with permanently installed antenna and earth.
MoMu0	3.29.11	an active radar set permanently installed either:
MoMu0	3.29.11 a)	a pulse (magnetron) unit with not less than 4 kW PEP and an antenna unit with a maximum dimension not less than 533 mm; or
MoMu0	3.29.11 b)	a frequency modulated continuous wave (FMCW) Broadband Radar™ unit. The radar antenna unit shall remain essentially horizontal when the boat is heeled and at least 7 m (23') above the water. Installations in place before January 2006 shall comply as closely as possible with OSR 3.29.11 a).



# US Sailing SER's (key differences to W/S OSR's)

- Easier to understand
- Self-contained
- 3 categories (vs 7)
  - Nearshore
  - Coastal
  - Ocean.
- More compact
- Member Input
- Local “recommendations”

Section Name	#	Requirement	Ocean	Coastal	Nearshore
Hull and Structure: Hull Openings	2.1.1	A boat's companionway(s) shall be capable of being blocked off to main deck level (sheerline). The method of blocking should be solid, watertight, and rigidly secured, if not permanent.	x	x	
Hull and Structure: Hull Openings	2.1.2	A boat's hatch boards, whether or not in position in the hatchway, shall be secured in a way that prevents their being lost overboard.	x	x	
Hull and Structure: Cockpit	2.1.3	A boat's entire cockpit shall be solid, watertight, strongly fastened and/or sealed. Weather-tight seat hatches are acceptable only if capable of being secured when closed.	x	x	
Hull and Structure: Cockpit	2.1.4	A boat's cockpit drains shall be capable of draining six inches of water in 5 minutes. One square inch (645mm <sup>2</sup> ) of effective drain per eight square feet (0.743m <sup>2</sup> ) of cockpit sole will meet this requirement.	x	x	
Hull and Structure: Cockpit	2.1.5.1	A boat's maximum cockpit volume for cockpits not open to the sea, including any compartments capable of flooding, to lowest points of coaming over which water can adequately escape, shall not exceed 0.06 x LOA x Max. Beam x Freeboard aft. The cockpit sole shall be at least 0.02 x LOA above LWL.	x		
	2.1.5.2	A boat's maximum cockpit volume for cockpits not open to the sea, including any compartments capable of flooding, to lowest points of coaming over which water can adequately escape, shall not exceed 0.08 x LOA x Max. Beam x Freeboard aft. The cockpit sole shall be at least 0.02 x LOA above LWL.		x	
Hull and Structure: Through Hulls	2.1.6	A boat's through-hull openings below the waterline shall be equipped with sea cocks or valves, except for integral deck scuppers, speed transducers, depth finder transducers and the like; however a means of closing such openings shall be provided.	x	x	
Hull and Structure: Stability	2.2.1	The boat must have a stability index greater than or equal to 115, or meet the requirements of ISO 12217-2A	x		
Hull and Structure: Stability	2.2.2	The boat must have a stability index greater than or equal to 103 or meet the requirements of ISO 12217-2B		x	

# World Sailing & US Sailing - Race Categories

Cat	Description	US Sailing
0	Trans-oceanic races, including races which pass through areas in which air or sea temperatures are likely to be less than 5 degrees Celsius other than temporarily, where yachts 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.	Ocean
1	Races of long distance and well offshore, where yachts must be completely self-sufficient for extended periods of time, capable of withstanding heavy storms and prepared to meet serious emergencies without the expectation of outside assistance.	Ocean
2	Races of extended duration along or not far removed from shorelines or in large unprotected bays or lakes, where a high degree of self-sufficiency is required of the yachts.	Coastal
3	Races across open water, most of which is relatively protected or close to shorelines.	Near Shore
4	Short races, close to shore in relatively warm or protected waters normally held in daylight.	Near Shore

## OSR & SER - *The Big Picture Provisions*

Uniformity	1.01.1 The purpose of the Offshore Special Regulations (OSR) is to establish uniform minimum equipment, accommodation and training standards.
Supplemental	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.
No Guarantee	1.01.3 Use of the OSR does not guarantee total safety of the boat and her crew....
RRS & PIC Responsibility	<p>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...</p> <p>2.2 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...</p>



# US Sailing & Mackinac SER Structure

[http://www.bycmack.com/main\\_documents.cfm](http://www.bycmack.com/main_documents.cfm)

Section	Description
1	General Requirements
2	Hull & Structure Requirements
3	Safety Equipment Requirements
4	Skills Requirements (Training)
5	Hull & Structure Recommendations
6	Safety Equipment Recommendations
7 & 8	Double Handed Requirements



## 2018 BELL'S BEER BAYVIEW MACKINAC RACE Saturday, July 14, 2018

*The World's Longest Continuously Run Long Distance Freshwater Yacht Race*

### Safety Equipment Requirements (SER) MONOHULL

#### 1. General Requirements

- 1.1 **Purpose** - The SER establish uniform minimum equipment, accommodation and training standards for boats racing in the 2018 Bell's Beer Bayview Mackinac (the "Race"). The SER do not replace, but rather supplement, the requirements of governmental authorities, the Racing Rules of Sailing (RRS), the rules of Class Associations and all applicable rating rules. Canadian boats operating temporarily in waters subject to U.S. jurisdiction, shall at all times be in compliance with Canadian laws and regulations governing recreational boats operating in waters subject to Canadian jurisdiction.
- 1.2 **Responsibility of Person-in-Charge** - The safety of a boat and her crew is the sole and inescapable responsibility of the "Person-in-Charge", as per RRS 46, who shall ensure that the boat is seaworthy and manned by an experienced crew with sufficient ability and experience to face bad weather. The Person-in-Charge shall be satisfied as to the soundness of hull, spars, rigging, sails, and all gear. The Person-in-Charge shall ensure that all safety equipment is at all times properly maintained and safely stowed, and that the crew knows where it is kept and how it is to be used.
- 1.3 **Inspections** - A boat may be inspected at any time by an inspector or measurer of the Organizing Authority. If she does not comply with these regulations her entry may be rejected or she will be subject to a protest filed by the Race Committee. A violation of the Safety Equipment Requirements may result in a penalty other than disqualification.
- 1.4 **Equipment and Knowledge** - All equipment required by the SER shall function properly, be regularly checked, cleaned and serviced, and be of a type, size and capacity suitable and for the intended use and size of the boat and the size of the crew, who will have practiced with the use of equipment. This equipment shall be readily accessible while underway and, when not in use, stored in such a way that deterioration is minimized.
- 1.5 **Secure Storage** - A boat's heavy items such as batteries, stoves, toolboxes, anchors, chains and internal ballast shall be secured.

http://www.bycmack.com

# 2018 BELL'S BEER BAYVIEW MACKINAC RACE



JULY 14TH, 2018

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## 2018 Bell's Beer Bayview Mackinac Race Official Notice Board

### This Year's Photos



### Registration

[Register / Update Info](#)

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[Request Invitation](#)

### Notice of Race

[Notice of Race](#)

### Sailing Instructions

### Monohull Docs

[Safety Equipment Requirements \(SER\)](#)

[ORR Rule  
ORR Application](#)

[ORR-EZ Rule  
ORR-EZ Application](#)

[ORR-EZ Tips](#)

### Multihull Docs

[Safety Equipment Requirements \(SER\)](#)

[GLMRA Ratings](#)

[Anti-Expo Suit Cert](#)

### Safety & Other Docs

[Bayview Mackinac Sailing Safety](#)

[Parental Waiver](#)

[Y.C. Challenge Form](#)

[PH Bridge Schedule](#)

### One Design Class Rules

### Current News



**Bayview Yacht Club** and **Detroit Yacht Club** have partnered to host  
US SA  
([more news](#))

Display a menu for "www.bycmack.com/main\_documents.cfm"

### 47 Entries To Date - Latest Entries:



**Tim Proffit**  
**NA 40**  
**Fast Tango - USA 15004**  
**Division I - Cove Island**  
**Class: Bayview**

## 2018 Mackinac SER Overview (key examples)

Required		Highly Recommended	
1.3	A boat may be inspected at any time...	5.2	Batteries: ...a boat shall carry a separate battery
3.1.1	Lifejackets: A boat shall have at least one (1) wearable U.S. Coast Guard PFD for each person... 3.1.2: Each PFD shall be equipped with a whistle and a water proof light.	6.1.3	PFD Equipment: ...that each PFD shall be equipped with crotch or leg straps...
3.7.2	Pole, Flag, Lifebuoy, Light - A boat shall have a man overboard pole and flag, with a lifebuoy, a self-igniting light, a whistle, and a drogue attached...	6.2.1	Lifesling®: ...a boat shall carry a Lifesling® or equivalent man overboard rescue device...
3.7.4	MOB Recording - A boat shall carry an electronic means to record the position of a man overboard within ten seconds... 3.9 ... Shall have a GPS Receiver		
3.8.1	VHF Radio - A boat shall have an installed VHF radio connected to a masthead antenna... Such radio shall have DSC (Digital Selective Calling) capability, be connected to or have an internal GPS, and have the assigned MMSI #.	6.3.2	EPIRB: ...a boat shall carry either a 406MHz EPIRB which is properly registered to the boat, or a floating 406MHz Personal Locator Beacon...
3.8.2	Handheld VHF Radio - A boat shall have a watertight handheld VHF radio or a handheld VHF radio with a waterproof cover...	6.4	Life Raft: ...a boat shall carry adequate inflatable life raft(s) designed for saving life at sea with designed capacity for containing the entire crew...

## Personal Equipment Review / Demo's

- Todd J to show some actual Personal equipment
  - Tethers
  - Harness Leg Straps
  - PLB
  - DanBouy



## SER Crew Training: 4.2 Man Overboard Training

- ☐ Annually, two-thirds of the boat's racing crew shall practice man-over-board procedures appropriate for the boat's size and speed.
- ☐ The practice shall consist of marking and returning to a position on the water, and demonstrating a method of hoisting a crewmember back on deck, or other consistent means of re-boarding the crew member.
- ☐ A Crew Overboard Drill Certificate of such practice shall be signed by participating crew members and kept aboard the boat.
- ☐ **The certificate shall be downloaded from the "Documents/Forms" section of the Race website; [www.bycmack.com](http://www.bycmack.com).**
- ☐ Practice of the "Quick Stop" man-overboard procedure is strongly recommended

## SER Crew Training: 4.3 Safety @ Sea Options

These safety options set forth below are required for all boats, but especially for those crewmembers who are participating in this race for the first time and for those boats which are participating in the race for the first time.

30% of crew (not less than 2) required to have completed one of the following:

- US Sailing Safety @ Sea Seminar (Valid ½ day Coastal or Offshore Certificate)
  - @ Bayview & NYC April 21 & 22
- DRYA Winter Seminar Attendance ( min 4 sessions )
  - Link: <http://drya.org/HTMLpages/SeminarNotes18.html>
- BYC Safety Articles – Self Study ( min 8 articles )
  - Link: [http://www.bycmack.com/main\\_safety.cfm](http://www.bycmack.com/main_safety.cfm)



# DRYA Seminars

## 2018 Schedule

Ref the “@@” flagged seminars that are safety related and qualify for the 2018 Mac SER training requirement

### Seminar Notes

(SCROLL ALL THE WAY DOWN TO SEE BOTTOM OF PAGE)

(@@) qualifies as a BYC MAC Safety Seminar

DATE	SESSION	Presentation	YouTube
Jan 10	Transatlantic Voyage @ GPYC Lake Invaders @ GPYC	<a href="#">Lake Invaders.pdf</a>	
Jan 11 (@@)	BYC Macinac Safety - what to expect in an inspection @ BYC		
Jan 17 (@@)	First Aid at Sea - Common sense solutions to injuries and illness at sea @ BYC		
Jan 31 (@@)	USCG Rescue @ NSSC		
Feb 7 (@@)	Offshore Spars on Masts and Rigging @ GLYC		
Feb 21	Race Organization and Management – From Beer Cans to the Olympics @ GPSC		
Feb 28	How to Maximize your Experience racing in DRYA @ BYC		
Mar 7	Radio Controlled Sailing @ DYC		
Mar 21	The Protest Process – From Incident to Decision and How to Survive “The Room” @ NCYC		
Mar 28 (@@)	Annapolis Safety at Sea Video @ PHYC		

# Agenda / Discussion Topics

## 1. Port Huron - Mackinac Race Safety Equip Requirements

- Overview / Background
- Equipment
- Crew Training

## 2. Inspection Process and Tips

- Pre-Race
- @ the Island
- Tips

## 3. Race Withdraws

- Process and Reporting

## Inspections - NOR

9.1 **Each competing owner and Person-In-Charge** is responsible for assuring that the boat complies with the SER. However, as a courtesy *and without relieving the Person-In-Charge of responsibility*, the SER Compliance Committee will be available for consultation before the Race.

9.2 The Race Committee may also require any competitor to submit to an SER Compliance Committee safety consultation before the Race. Such consultations may be arranged through the Race Committee by submitting a request via e-mail to [mackchair2018@byc.com](mailto:mackchair2018@byc.com) or by mail to BYC

9.3 The SER Compliance Committee will inspect randomly selected boats immediately after finishing the Race at Mackinac Island. Boats not in compliance with the SER or hindering the inspection process will be subject to protest by the Race Committee.

## Inspections - SER

1.3 A boat may be inspected at any time by an inspector or measurer of the Organizing Authority.

If she does not comply with these regulations her entry may be rejected or she will be subject to a protest filed by the Race Committee. A violation of the Safety Equipment Requirements may result in a penalty other than disqualification.

## Pre-Race Safety Consultations

- Offered as a courtesy by request (as available)
- May be required (first time entrants, etc)
- Does not exempt a boat from a later inspection
- If required/requested, please arrange for these at the earliest convenience as it gets harder as the race gets closer.

## 2018 Inspection Process (new for 2018)

- Planning on designation of safety inspection dock/area for selected boats when finishing (before docking)
  - Alerted via VHF at finish to proceed to inspection area before docking
  - Boats may still be inspected after docking (as before)
  - Inspections are selected from top, middle, and bottom finishers – focus on “safety” vs winner’s compliance



# Inspection: Expectations & Tips

## 1. Inspectors are volunteers

- Mission - to help us conduct a safe and fair race for the benefit of all participants.
- While you may be cold/wet/tired, chances are they also have been up for hours – working boats as they finish, in whatever conditions exist at the time, late @ night, etc.
- They are not the adversary – if you are not prepared it is your fault not theirs.
- Like all of us, they like to be treated with courtesy- **thank them** for their efforts to help make our sport fun, safe, possible.

# Inspection: Expectations & Tips

## 2. Inspectors generally conduct a spot check (via an inspection card)

- The inspectors are trying to get through an assigned schedule which can be hectic as boats are finishing.
- They have an assigned list of things they required to check – they are trying to do their job efficiently and as assigned – they did not make the rules.
- There is no need to show/discuss items that are not on their inspection card/checklist (unless requested) – this just slows down the process.
- If you are prepared, courteous, and compliant, it goes much faster.

# Inspection: Expectations & Tips

## 3. Be prepared in case you are selected

- While it is wise to have multiple (all) crew know the SER's, equipment locations, and emergency procedures, Have a crew member (or skipper) pre-assigned to handle the inspection request. All the crew should know who this is (and how to contact them).
  - Be knowledgeable about the SER's and your equipment, locations, use, procedures, etc
  - Be organized. The race can be hectic. Keep important doc's and equipment handy, safe, and in it's proper location when not in use (SER 1.4) – not buried under a pile of wet sails.
  - **The Crew Man overboard Certificate is required to be on the race website form.**
  - Another “best practice” is to take a picture of your pre-race prep/training to demonstrate competence: backup tiller, rudderless steering, storm sail rigging, etc.
  - If other crew members are required to address specific requirements/requests (i.e. demonstrate rudderless steering), know who is assigned to do that and have them available.
  - The inspectors may ask about recommended items (as part of our safety data gathering efforts)
- You may want to do a mock inspection drill with your crew, some evening after a pre-race practice sail/drill, so everyone knows what to expect

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# Withdrawals (2017 Sailing Instructions)

## **14. BOATS RETIRING FROM THE RACE**

A boat that retires from the Race for any reason SHALL notify the Race Committee on Mackinac Island by telephone at 906-847-6179 as soon as possible. The boat also shall notify the United States Coast Guard via VHF channel 16, if possible. If the boat cannot establish radio contact with the United States Coast Guard, she shall notify a United States Coast Guard station nearest the port of refuge. Failure to comply with this Sailing Instruction may result in a protest by the Race Committee and/or denial of an invitation to participate in future Mackinac Races.

## **18. SAFETY AT SEA**

Bayview Yacht Club supports the US SAILING Safety at Sea Reporting Program, requiring that boats failing to finish the race report the reasons and circumstances to US SAILING in writing. In addition, it is requested that a report be led with the Race Committee on any significant accident, or boat or equipment failure, even if the boat finishes.

# Withdrawals and Emergencies

- Withdrawal info is reviewed to see if there is a need for modifying the NOR, SI's, or SER's.
- 2018 SI's may change to a local withdrawal reporting requirement (vs US Sailing as the primary)
- In 2017, the BYC race had 14 withdrawals and the CYC race had 93 withdrawals. Information from the person in charge gives important feedback, especially for equipment failures and requirements.
- <http://www.ussailing.org/safety/big-boat-safety-at-sea/safety-at-sea-withdrawal>



# US Sailing Withdrawal Form Questions

Person In Charge - name and contact information

Boat Name, sail number and class

Narrative account of the circumstances relative to your withdrawal, including the approximate hour, weather conditions, number of persons aboard and the reason for withdrawal.

If structural or mechanical failure were the cause, please describe in detail.

Your evaluation of the seagoing capability of your crew will be helpful. Include any radio contacts (EPIRB and email too) made and their responses.

Describe injuries, if any.

Was any gear deployed and not picked up? If so, what?

Any additional information you care to add will be appreciated, such as attempts to repair, assistance rendered by other vessels, etc.

Note: In an effort to better understand products that contribute to failure of passage, please include specific mention of product performance deficiencies related to this incident.

# Questions

- Happy to help here if we can...  
...Formal SER & Inspection policy questions and responses will go through the MRA
- Address future questions to:
  - [mackchair2018@byc.com](mailto:mackchair2018@byc.com)
  - [safety@byc.com](mailto:safety@byc.com)

