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## 2018 Chicago Mackinac Safety Requirements

Effective Date: January 14, 2018

*Revision 2018.1 - Revised 1/14/18*

Section Name	USSER #	Requirement
Overall	1.1	The Safety Equipment Requirements establish uniform minimum equipment and training standards for a variety of boats racing in differing conditions. These regulations do not replace, but rather supplement, the requirements of applicable local or national authorities for boating, the Racing Rules of Sailing, the rules of Class Associations and any applicable rating rules.
Overall: Responsibility	1.2	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. S/he shall be satisfied as to the soundness of hull, spars, rigging, sails and all gear. S/he 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.
Overall: Equipment and Knowledge	1.4	All equipment required shall function properly, be regularly checked, cleaned and serviced, and be of a type, size and capacity suitable for the intended use and size of the boat and the size of the crew. This equipment shall be readily accessible while underway and, when not in use, stored in such a way that deterioration is minimized.
Overall: Secure Storage	1.5	A boat's heavy items such as batteries, stoves, toolboxes, anchors, chain and internal ballast shall be secured.

Overall: Strength of Build	1.6	A boat shall be strongly built, watertight and, particularly with regard to hulls, decks and cabin trunks, capable of withstanding solid water and knockdowns. A boat shall be properly rigged and ballasted, be fully seaworthy and shall meet the standards set forth herein. A boat's shrouds and at least one forestay shall remain attached at all times.
Overall: Watertight Integrity	1.7	A boat's hull, including, deck, coach roof, windows, hatches and all other parts, shall form an integral watertight unit, and any openings in it shall be capable of being immediately secured to maintain this integrity.
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.
Hull and Structure: Accommodations	2.3.2	A boat shall have bunks sufficient to accommodate the off watch crew.
Hull and Structure: Accommodations	2.3.3	A boat shall have a stove with a fuel shutoff.
Hull and Structure: Accommodations	2.3.5	A boat shall have adequate hand holds below decks.
Hull and Structure: Lifelines	2.4.2	A boat's stanchion and pulpit bases shall be within the working deck.
Hull and Structure: Lifelines	2.4.3	Bow pulpits may be open, but the opening between the vertical portion of stanchion pulpit and any part of the boat shall not exceed 14.2" (360mm).

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Hull and Structure: Lifelines	2.4.4.1	Lifeline deflection shall not exceed the following: a) When a deflecting force of 9 lbs (40N) is applied to a lifeline midway between supports of an upper or single lifeline, the lifeline shall not deflect more than 2" (50mm). This measurement shall be taken at the widest span between supports that are aft of the mast. b) When a deflecting force of 9 lbs (40N) is applied midway between supports of an intermediate lifeline of all spans that are aft of the mast, deflection shall not exceed 5" (120mm) from a straight line between the stanchions.
Hull and Structure: Lifelines	2.4.5	The maximum spacing between lifeline supports (e.g. stanchions and pulpits) shall be 87" (2.2m).
Hull and Structure: Lifelines	2.4.6	Boats under 30' (9.14m) shall have at least one lifeline with 18" (457mm) minimum height above deck, and a maximum vertical gap of 18" (457mm). Taller heights will require a second lifeline. The minimum diameter shall be 1/8" (3mm).
Hull and Structure: Lifelines	2.4.7	Boats 30' and over (9.14m) shall have at least two lifelines with 24" (762mm) minimum height above deck, and a maximum vertical gap of 15" (381mm). The minimum diameter will be 5/32" (4mm) for boats to 43' (13.1m) and 3/16" (5mm) for boats over 43' (13.1m).
Hull and Structure: Lifelines	2.4.8	Toe rails shall be fitted around the foredeck from the base of the mast with a minimum height of 3/4" (18mm) for boats under 30' (9.14m) and 1" (25mm) for boats over 30'. An additional installed lifeline that is 1-2" (25-51mm) above the deck will satisfy this requirement for boats without toerails.
Hull and Structure: Dewatering pumps	2.5.1	A boat shall have a permanently installed manual bilge pump of at least a 10 GPM (37.8 liter per minute) capacity and which is operable from on deck with the cabin closed with the discharge not dependent on an open hatch. Unless permanently attached to the pump, the bilge pump handle shall be securely attached to the boat in its vicinity via a lanyard or catch. A bilge pump discharge shall not be connected to a cockpit drain. The bilge pump shall not discharge into a cockpit unless that cockpit opens aft to the sea.
Safety Equipment: Personal	3.1.1	Each crewmember shall have a life jacket that provides at least 33.7lbs (150N) of buoyancy, intended to be worn over the shoulders (no belt pack), meeting either U.S. Coast Guard or ISO specifications. Alternatively, each crewmember shall have an inherently buoyant off-shore life jacket that provides at least 22lbs (100N) of buoyancy meeting either U.S. Coast Guard or ISO specifications.
Safety Equipment: Deck Safety	3.2.1	A boat shall carry jacklines with a breaking strength of at least 4500 lb. (20kN) which allow the crew to reach all points on deck, connected to similarly strong attachment points, in place while racing.
Safety Equipment: Navigation Lights	3.3.1	A boat racing between sunset and sunrise shall carry navigation lights that meet U. S. Coast Guard or applicable government requirements mounted so that they will not be obscured by the sails nor be located below deck level.

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Safety Equipment: Navigation Lights	3.3.2	A boat shall have a second set of navigation lights that comply with US Coast Guard or applicable government requirements and which can be connected to a different power source than the primary lights.
Safety Equipment: Fire Extinguishers	3.4	A boat shall carry fire extinguisher(s) that meets U.S. Coast Guard or applicable government requirements, when applicable.
Safety Equipment: Sound Producing Equipment	3.5	A boat shall carry sound-making devices that meets U.S. Coast Guard or applicable government requirements, when applicable.
Safety Equipment: Visual Distress Signals	3.6.4	A boat shall carry two SOLAS red parachute flares not older than the expiration date.
Safety Equipment: Visual Distress Signals	3.6.5	A boat shall carry four SOLAS red hand flares not older than the expiration date.
Safety Equipment: Visual Distress Signals	3.6.5-1	Boat flares stored inside of life rafts may not be used to satisfy the flare requirement.
Safety Equipment: Man Overboard	3.7.1	A boat shall carry a Lifesling or equivalent man overboard rescue device equipped with a self igniting light stored on deck and ready for immediate use.
Safety Equipment: Man Overboard	3.7.2	A boat shall have a man overboard pole and flag, with a lifebuoy, a self-igniting light, a whistle, and a drogue attached. A self-inflating Man Overboard Module, Dan Buoy or similar device will satisfy this requirement. Self-inflating apparatus shall be tested and serviced in accordance with the manufacturer's specifications. These items shall be stored on deck, ready for immediate use, and affixed in a manner that allows for a "quick release".
Safety Equipment: Man Overboard	3.7.3	A boat shall have a throwing sock-type heaving line of 50' (15m) or greater of floating polypropylene line readily accessible to the cockpit.

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Safety Equipment: Man Overboard	3.8.2	A boat shall have a watertight handheld VHF radio or handheld VHF radio with waterproof cover. The radio shall have DSC/GPS capability with an MMSI number properly registered to the vessel.
Safety Equipment: Emergency Communications	3.14	A boat shall carry a GPS receiver.
Safety Equipment: Emergency Communications	3.15	A boat shall carry an electronic means to record the position of a man overboard within ten seconds. This may be the same instrument listed in 3.14.
Safety Equipment: Emergency Communications	3.16.2	A boat shall carry either a 406MHz EPIRB which is properly registered to the boat, or a floating 406MHz Personal Locator Beacon, registered to the owner with a notation in the registration that it is aboard the boat. This device shall be equipped with an internal GPS.
<i>Safety Equipment: Navigation</i>	3.18	A boat shall have a permanently installed depth sounder that can measure to depths of at least 200 ft. (61m).
Safety Equipment: Navigation	3.19.1	A boat shall have a permanently mounted magnetic compass independent of the boat's electrical system suitable for steering at sea.
Safety Equipment: Navigation	3.20	A boat shall have non-electronic charts that are appropriate for the race area.
Safety Equipment: Damage Control	3.22	A boat shall carry soft plugs of an appropriate material, tapered and of the appropriate size, attached or stowed adjacent to every through-hull opening.
Gear: Anchoring	3.23	A boat shall carry one anchor, meeting the anchor manufacturer's recommendations based on the yacht's size, with a suitable combination of chain and line.
Gear: Lights	3.24.1	A boat shall carry a watertight, high-powered searchlight, suitable for searching for a person overboard at night or for collision avoidance.
Gear: Lights	3.24.3	A boat shall carry at least two watertight flashlights with spare batteries in addition to the requirement of 3.24.1.

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Gear: Medical Kits	3.25	A boat shall carry a first aid kit and first aid manual suitable for the likely conditions of the passage and the number of crew aboard.
Gear: Radar Reflectors	3.26	A boat shall carry an 11.5" (292mm) diameter or greater octahedral radar reflector or one of equivalent performance.
	3.27.1	A boat shall carry two sturdy buckets of at least two gallons (8 liters) capacity with lanyards attached.
Gear: Safety Diagram	3.28	A boat shall post a durable, waterproof diagram or chart locating the principal items of safety equipment and through hulls in the main accommodation area where it can be easily seen.
Gear: Spare Parts	3.30	A boat shall carry tools and spare parts, including an effective means to quickly disconnect or sever the standing rigging from the hull.
Gear: Identification	3.31	All lifesaving equipment shall bear retro-reflective material and be marked with the yacht's or wearer's name. The exception would be for new equipment or rented equipment (e.g. life rafts) that would require the unpacking of sealed equipment in order to meet this requirement. The boat name shall be added during the first servicing of any new equipment.
Gear: Cockpit Knife	3.32	A boat shall carry a strong, sharp knife, sheathed and securely restrained which is readily accessible from the deck and/or cockpit.
Sails: Headsails	3.33.4	A boat shall carry a storm jib not exceeding 5% of the yacht's I dimension squared, and equipped with an alternative means of attachment to the headstay in the event of a failure of the head foil. Storm sails manufactured after 01/01/2014 shall be constructed from a highly visible material.
Rigging: Boom Support	3.36	A boat over 30' LOA (9.14m) shall have a means to prevent the boom from dropping if support from the mainsail or halyard fails.
Skills: Emergency Steering	4.1.1	A boat's crew shall be aware of multiple methods of steering the boat with the rudder disabled, and shall have chosen and practiced one method of steering the boat with the rudder disabled and be prepared to demonstrate said method of steering both upwind and downwind.
Chicago Specific Requirement	5.1	Centerboard/Daggerboard Trunks – Centerboard and daggerboard trunks, and the like, shall not open into the interior of a hull except via a watertight inspection/maintenance hatch of which the opening shall be entirely above the waterline of the boat when floating level in normal trim.
Chicago Specific Requirement	5.2	Exits – Boats shall have at least two (2) exits. At least one exit shall be located forward of the foremost mast except where structural features prevent its installation in this location.
Chicago Specific Requirement	5.3	Halyards – No mast shall have less than two (2) halyards, each capable of hoisting a sail.
Chicago Specific Requirement	5.4	Spare Bulbs for Navigation Lights – Boats shall carry spare bulbs for navigation lights. However, spares are not required for navigation lights using LEDs.

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Chicago Specific Requirement	5.5	Boat Batteries – When an electric starter is the only method for starting the engine, boats shall carry a separate battery, the primary purpose of which is to start the engine.
Chicago Specific Requirement	5.6	A boat shall have a mechanical propulsion system that is quickly available and capable of driving the boat for 10 hours at a minimum speed in knots equivalent to the square root of LWL in feet (approximately 75% of theoretical hull speed; 1.81 times the square root of the waterline in meters) and finish the race with fuel sufficient to continue motoring at that speed for 10 hours.
Chicago Specific Requirement	5.7	Reflective Sailboard – Boats shall carry a reflective sailboard displaying its sail number. The sailboard shall be constructed to be displayed easily as prescribed by the Race’s Sailing Instructions. Each character shall be at least ten (10) inches high and made of contrasting marine-grade reflective material mounted on a black background.
Chicago Specific Requirement	5.8	Boats shall carry a working cellular phone with the cellular number as provided on the Entry Profile which is unique to and regularly used by the Invited Competitor to send and receive calls.
Chicago Specific Requirement	5.9	Personal Safety Knife – A knife, straight blade or, if folding, able to be opened with one hand, to be attached to or carried on each crew member at all times. The Personal Safety Knife must be readily accessible at all times including while wearing foul weather gear and PFD/Harnesses.
Chicago Specific Requirement	5.10	Canting Keel – A canting keel pivot shall be completely contained within a watertight enclosure, which shall comply with CMSR item 1.7. Access points in the watertight enclosure for control and actuation systems or any other purpose shall comply with CMSR item 1.6
Chicago Specific Requirement	5.11	In addition to the GPS required in 3.14 above, the boat shall carry a second GPS which shall be battery powered independent of the boat's electrical system.
Chicago Specific Requirement	5.12	Movable Ballast – Movable ballast systems shall be fitted with a manual control and secondary actuation system, which shall be capable of controlling the full sailing load of the keel in the event of a failure of the primary system. Such failures may include electrical and hydraulic failure and mechanical failure of the components and the structure to which it mounts. The system must be quickly operated, and shall be operated at any angle of heel. It would be desirable if this system was capable of securing the keel on the centerline.
Chicago Specific Requirement	5.13	Annual Man Overboard Practice – Man-overboard procedures appropriate for the boat's size and speed shall be practiced aboard the boat within six months prior to the race. At least two-thirds of all crew members racing on the boat during the Race must participate in this practice. 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 "Race Documents" section of the Mac website. <a href="http://www.cycracetomackinac.com">www.cycracetomackinac.com</a> . Practice of the "Quick Stop" man-overboard procedure is strongly recommended

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Chicago Specific Requirement	5.15	Toilet – Boats shall have a permanently installed operable toilet, or a portable toilet, properly secured.
Chicago Specific Requirement	5.16	A boat shall have an emergency tiller, capable of being fitted to the rudder stock. Boats using an unbreakable metal tiller are exempt from this requirement.
Chicago Specific Requirement	5.17	Each crewmember shall have a safety harness and compatible safety tether not more than 6'7" (2m) long with a minimum tensile strength of 4500 lb. (20kN). The tether shall have a snap hook at its far end and a quick release shackle at the harness end that is releasable under heavy load
Chicago Specific Requirement	5.18	Life jackets shall be equipped with a whistle, a waterproof light, be fitted with marine-grade retro-reflective material, and be clearly marked with the boat's or wearer's name, and be compatible with the wearer's safety harness. If the life jacket is inflatable, it shall be regularly checked for air retention and shall be equipped with leg or crotch straps.
Chicago Specific Requirement	5.19	Lifelines shall be stainless steel wire. A multipart-lashing segment not to exceed 4" per end termination for the purpose of attaching lifelines to pulpits is allowed. Lifelines shall be taut.
Chicago Specific Requirement	5.20	A boat's deck including the headstay shall be surrounded by a suitably strong enclosure, typically consisting of lifelines and pulpits, meeting the requirements in 2.4.2 to 2.4.8 and 5.18
Chicago Specific Requirement	5.21	Boats shall have mainsail reefing equipment that will allow the luff of the mainsail to be reduced by at least 10%. In lieu of this requirement, boat may carry a storm trysail that is capable of being attached to the mast and sheeted independently of the boom with area not greater than 17.5% of mainsail luff length multiplied by the mainsail foot length.
Chicago Specific Requirement	5.22	A boat shall have a permanently installed 25-watt VHF radio connected to a masthead antenna by a co-axial feeder cable with no more than a 40% power loss. Such radio shall have DSC capability, have a suitable antenna, be connected to or have an internal GPS, and have the assigned MMSI number (unique to the boat) programed into the VHF.
Chicago Specific Requirement	5.23	A boat shall have a suitable emergency VHF antenna with sufficient coax to reach the deck.

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**2018 Chicago Mackinac Safety Requirements**  
**Appendix A - Recommendations**

*The following items are strongly recommended, but are not required for this running of the Race. These are NOT requirements and no competitor is subject to protest on these matters. The Mac Committee is considering imposing these as requirements in subsequent races so boat owners would be advised to take them into account in equipping their boat and/or training their crew.*

Section Name	USSER #	Recommendation
Skills: Safety at Sea Training	5.x	At least (2) members of the crew sailing on the boat shall have a current certification for First Aid and CPR. For a list of recognized courses visit - <a href="http://www.ussailing.org/safety/equipment-and-requirements/">http://www.ussailing.org/safety/equipment-and-requirements/</a>
Skills: Safety at Sea Training	4.3.1	At least 30% of those aboard the boat, but not fewer than two members of the crew, unless racing single-handed, including the person in charge, shall have attended a one-day or two-day US Sailing Safety at Sea Seminar within the last 5 years, including online courses when available, or other courses as accepted by US Sailing or other national authority.

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Gear: Life Rafts	3.39	A boat shall carry adequate inflatable life raft(s) designed for saving life at sea with designed capacity for containing the entire crew. The raft shall be SOLAS, ISAF, ISO 9650-1 or ORC approved. The raft shall be stored in such a way that it is capable of being launched within 15 seconds. Boats built after 01/06/2001 shall have the life raft stowed in a deck mounted rigid container or stowed in watertight or self-draining purpose built rigid compartment(s) opening adjacent to the cockpit or the working deck. <i>Boats built prior to 01/06/2001 may alternatively stow the life raft in a valise not weighing over 88 lbs. securely below deck and adjacent to the companionway.</i> The life raft(s) shall hold current certificate(s) of inspection.
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## 2018 Chicago Mackinac Safety Requirements

### Appendix B- Seamanship and Safety Skills Checklist

Thank you for your interest in the Chicago Yacht Club Race to Mackinac. The safety of all competitors is a primary concern of the Mackinac Committee, and the primary responsibility of each skipper. The checklist below is based on the requirements of the US Sailing Offshore Sailing course for the type of boats and offshore conditions of this race. It is the expectation of the Selections Sub-Committee that the Invited Competitor, Person-In-Charge, and appropriate crew members will be competent in these areas of seamanship and safety. We ask that you use this checklist to satisfy yourself of your competency and that of your navigator, watch captains, and other crew members prior to submitting a Request for Invitation. - **CYCMC Selections Sub-Committee**

*The following items are strongly recommended, but are not required for an invitation*

#### **PREPARATION TO SAIL:**

Able to:

1. Recognize and forecast basic local weather conditions.
2. Describe personal preparation such as physical fitness, clothing and sun protection.
3. Check auxiliary power systems: location and operation of engine controls, fuel filters, alternator, engine mechanical and fluids check, transmission controls, shut off valves, ventilation system, and engine cooling system.
4. Check the electrical system: main battery switch, electrical control panel, battery fluids and
5. Locate the bilge pump system for manual and electrical pumps, intake maintenance, and bilge pump alarms and fuses.
6. Check and locate the anchoring system: rodes, shackles, and chains.
7. Check the sail inventory and understand the proper selection of sails for differing weather conditions.
8. Check the security and operation of all hatches, ports and companionways.

9. Check the inventory and location of all on board tools and spare parts.
10. Determine the motoring range under power and the vessel's fuel capacity.
11. Locate all required documentation for the crew and vessel.

### **CREW OPERATION AND SKILLS:**

Able to:

1. Describe the proper wearing of life jackets and the use of throwable floatation and rescue devices.
2. Demonstrate tying and the use of: stopper knot, bowline, cleat hitch and clove hitch.
3. Describe winch types, proper operation, and the procedure for clearing a fouled winch.
4. Properly heave a line for towing or docking.
5. Describe crew responsibilities and operational communications.
6. Demonstrate proper sail trimming and shaping techniques.
7. Describe proper VHF radio procedure, operation of controls, channel usage, weather receiving, and emergency procedures.
8. Describe minimum US Coast Guard safety requirements for auxiliary powered vessels.
9. Explain the purpose and proper use of a radar reflector.
10. Describe how to safely go aloft.
11. Describe proper rafting techniques at docks and anchorages and with other vessels.
12. Operate the stove and its controls and shut off valves.
13. Properly operate the head, and its controls and valves.

### **NAVIGATION:**

1. Ability to use for navigation; a plotter, parallel rules, dividers, a clock, a hand bearing compass, a ship's compass, a depth sounder, a knotlog and binoculars.
2. Is familiar with the International and Inland Navigation Rules 1 through 19, and rules 20 through 31 regarding the identification of dayshapes, and rules 32 through 38 regarding sound signals.
3. Is familiar with basic chart reading and identification of chart symbols and landmarks.
4. Can describe aids to navigation: channel markers, daymarkers, regulatory markers, and other markers specific to Lake Michigan waters.
5. Can describe the two different designs for diver's flags.

6. Ability to perform basic dead reckoning, plotting, calculating speed/distance/time, and taking bearings and fixes.
7. Is familiar with the magnetic and electrical influences that may disrupt accurate compass readings.
8. Can define true and magnetic compass readings, and the application of variation and deviation.
9. Is familiar with considerations, responsibilities and special techniques for restricted visibility
10. Can use electronic navigation devices such as GPS for positioning and determining a course to steer.
11. Can demonstrate the data entry use of a navigation log.
12. Can describe the use and operation of electronic navigation instruments such as Knot meters, Depth Sounders, Wind Speed/Direction Indicators, Global Positioning Systems, VHF Radio, (and if your vessel is so equipped, Radar, Weather fax, SatNav, or Personal Computers).
13. Is familiar with sources for information and use of appropriate publications such as: NOAA Chart #1, Coast Pilots, Light Lists, Navigation Rules, Local Notice to mariners, Federal Requirements for recreational Boaters, and local rules and regulations.
14. Can determine position on a chart based on casual observations, then confirmed by traditional piloting techniques.
15. Has an understanding of current, set and drift and its effects. Can determine current from known set and drift, then plot an estimated position.
16. Can plot a fix using two or more bearings on different objects and a fix using at least one range (transit) as a Line of Position.
17. Can plot a running fix.
18. Is familiar with bow and beam bearings, doubling the angle on the bow, and the limitations and dangers of using these methods.

#### **SAFETY AND EMERGENCY PROCEDURES**

1. Can locate first aid kit and identify its contents and use.
2. Knows treatment for victims of overheating, hypothermia and seasickness.
3. Can determine the location, use and regulations for safety flares.
4. Knows at least eight different distress and emergency signals.
5. Knows the US Coast Guard and IRC requirements for safety equipment.
6. Can describe the common recovery methods after going aground.
7. Is familiar with fire extinguishers on board: regulations, types, location and operation.

8. Knows the location and operation of the emergency steering system and boat control during a failure of the steering system.
9. Is familiar with proper towing techniques: maneuvering onto a tow, handling and securing a towline, chafe protection, boat speed, dropping off a tow, and communications.
10. Can demonstrate proper deck safety and the use of life jackets, safety harnesses and jack lines during heavy weather conditions.
11. Can explain proper fueling techniques and potential hazards.
12. Can describe emergency procedures and equipment in the event that you have struck an obstruction and holed your vessel in deep water.
13. Can describe a plan of action in the event of a dismasting in heavy wind and sea conditions.
14. Can describe a plan of action and deployment procedure if your vessel was in danger of sinking, and you have a life raft aboard. Can describe how you were prepared for this unlikely event.
15. Can describe weather warning light and flag displays for small craft, gales, storms, and hurricane level winds.

#### **OVERBOARD RECOVERY METHODS:**

1. Can demonstrate Reach-Tack-Reach and Quickstop methods: communications, recovery plan, sequence of maneuvers, boat handling, course sailed, pickup approach, bringing boat alongside victim, bringing victim aboard.
2. Can describe when overboard recovery should be done under power.

#### **BOAT CONTROL IN OPEN WATER:**

1. Knows how to control steering with weight and sails only.
2. Can describe sailing “by the lee” and explain the inherent dangers involved.
3. Can describe a plan of action if your vessel has fouled its propeller while under power near a dangerous lee shore in strong winds with sails stowed.
4. Can describe a plan of action having run solidly aground in moderate conditions on a rocky shore.

#### **HEAVY WEATHER SAILING:**

1. Has practiced the proper reefing techniques: determining when to reef, changing or roller furling headsails, reefing the mainsail, dropping sails, shaking out a reef and re-hoisting underway.

2. Has experienced proper helming and boat control while sailing under shortened sail.
3. Knows how to shorten sail to de-power and can explain effect on balance of boat.
4. Can describe the sky and water indications of an approaching squall and plan of action to remain safe aboard the boat when it would or would not be appropriate to seek a port of refuge.
5. Understands the use of a boom preventer and can explain overcoming its inherent dangers.
6. Can explain and perform heaving-to in heavy weather conditions and explain the considerations for crew safety.

#### **ANCHORING TECHNIQUES:**

1. Is familiar with anchoring for emergency situations such as loss of boat control, sudden storms, and prevention from going aground or endangered crew situations.
2. Can select an anchorage and properly anchor with single anchor under power.
3. Can explain different types of anchors and various bottom conditions suited for each type.
4. Knows the proper anchor rode scope for heavy weather, and how to calculate actual scope.
5. Knows the proper etiquette when anchoring in the vicinity of other boats.
6. Knows how to properly retrieve an anchor and depart under power.
7. Can describe the different procedures and reasons for anchoring with two anchors under sail and under power.
8. Can describe the procedures for un-fouling crossed anchors, recovering an anchor from under another boat, and recovery procedures for dragging while at anchor.
9. Has experienced anchoring the vessel under sail in difficult conditions such as darkness, fog or heavy weather both as skipper and crew.



# 2018 Chicago Mackinac Safety Requirements

## Appendix C - Resources

*The following is list of safety resources and recommendations for competitors. This is NOT an official race document and may not be the basis of protest of any competitor. This tab will be frequently updated as new information becomes available. If you have suggestions for safety recommendations which should appear in this tab, please email [regattamanager@chicagoyachtclub.org](mailto:regattamanager@chicagoyachtclub.org)*

### **No Discharge regulation:**

(625 ILCS 45/4-9) (from Ch. 95 1/2, par. 314-9)

Sec. 4-9. Sealing of marine heads. No marine head (toilet) on any watercraft used upon waters of this State may be so constructed and operated as to permit the discharge of any sewage into the waters directly or indirectly.

(Source: P.A. 88-524.)

<http://www.ilga.gov/legislation/ilcs/ilcs4.asp?DocName=062500450HArt%2F+IV&ActID=1826&ChapterID=0&SeqStart=7600000&SeqEnd=8900000>

### **(415 ILCS 105/) Litter Control Act.**

(415 ILCS 105/3) (from Ch. 38, par. 86-3)

Sec. 3. As used in this Act, unless the context otherwise requires:



(a) "Litter" means any discarded, used or unconsumed substance or waste. "Litter" may include, but is not limited to, any garbage, trash, refuse, cigarettes, debris, rubbish, grass clippings or other lawn or garden waste, newspaper, magazines, glass, metal, plastic or paper containers or other packaging construction material, abandoned vehicle (as defined in the Illinois Vehicle Code), motor vehicle parts, furniture, oil, carcass of a dead animal, any nauseous or offensive matter of any kind, any object likely to injure any person or create a traffic hazard, potentially infectious medical waste as defined in Section 3.360 of the Environmental Protection Act, or anything else of an unsightly or unsanitary nature, which has been discarded, abandoned or otherwise disposed of improperly.

(415 ILCS 105/4) (from Ch. 38, par. 86-4)

Sec. 4. No person shall dump, deposit, drop, throw, discard, leave, cause or permit the dumping, depositing, dropping, throwing, discarding or leaving of litter upon any public or private property in this State, or upon or into any river, lake, pond, or other stream or body of water in this State, unless:

- (a) the property has been designated by the State or any of its agencies, political subdivisions, units of local government or school districts for the disposal of litter, and the litter is disposed of on that property in accordance with the applicable rules and regulations of the Pollution Control Board;
- (b) the litter is placed into a receptacle or other container intended by the owner or tenant in lawful possession of that property for the deposit of litter;
- (c) the person is the owner or tenant in lawful possession of the property or has first obtained the consent of the owner or tenant in lawful possession, or unless the act is done under the personal direction of the owner or tenant and does not create a public health or safety hazard, a public nuisance, or a fire hazard;
- (d) the person is acting under the direction of proper public officials during special cleanup days; or
- (e) the person is lawfully acting in or reacting to an emergency situation where health and safety is threatened, and removes and properly disposes of such litter, including, but not limited to, potentially infectious medical waste as defined in Section 3.360 of the Environmental Protection Act, when the emergency situation no longer exists.

(Source: P.A. 92-574, eff. 6-26-02.)



**2018 Chicago Mackinac Safety Requirements**  
 Change Log since final 2017 CMSRs (revision 2017.4)

Date	MSR changed	New MSR	Comment
1-Jan-18	5.19	5.19	Only stainless steel lifelines permitted - no HPME lifelines permitted to be consistent with US Sailing SERs and World Sailing OSRs (2017 versions and beyond)
1-Jan-18	5.1.4	3.8.2	(Was recommended 3.8.2) Insert handheld with DSC requirement.
1-Jan-18	3.15	3.15	(Was recommended 3.15) Moved means for MOB recording capability to required from recommended.
1--Jan-18	2.7.1	5.6	2.7.1 and 5.6 covered fuel requirements - combined the two into

**Unofficial copy - XLXS File is official**