

CHICAGO YACHT CLUB

RACE TO MACKINAC

SEAMANSHIP AND SAFETY SKILLS CHECKLIST FOR PROSPECTIVE COMPETITORS

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 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.

Selections Committee

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 terminals.
- 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.
- 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 navigation.
- 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 the 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.

