



Storm Trysail Hands-on Safety-at-Sea Seminar May 2019

Storm Trysail Quiz Questions and Answers

Thank you for attending the Seminar and taking the quiz. Here are the explanations for the correct answers.

On the same web page where you found this document, you can also download the "Quiz Scores" document to find your answers. Responses are sorted by last name and you'll find your test results by looking for the first three letters of your last name and your first initial.

Question	Correct answer
Q 1 was filling in your name and not counted in the scoring.	
2 If you fall overboard and your pfd inflates, you should: 1. Take off your foul weather gear 2. Take off your sea boots 3. Start swimming towards the nearest land 4. None of the above	"None of the Above" – if you go overboard wearing your PFD, your foul weather gear and boots will keep you warm. Keep them on. You won't be able to swim far, especially in a PFD. Conserve your energy and wait to be picked up.
3 While you are in the water wearing your inflated PFD awaiting recovery, you should: 1. Face into the wind 2. Tread water vigorously to stay warm 3. Lean back and hug your knees to your chest 4. Loosen your crotch straps	"Lean back and hug your knees to your chest" – save heat and energy! Don't face the waves and get mouthfuls of water, or tread vigorously and wear yourself out, plus circulating cold water. If you loosen your crotch straps, you will slip down in your PFD putting your mouth closer to the water.

Question	Correct answer
<p>4 While awaiting recovery, how do you maximize the effectiveness of your AIS beacon with built in strobe?</p> <ol style="list-style-type: none"> 1. Shake it vigorously to rev up the battery 2. Hold it up in the air 3. Turn it off to save the battery 	<p>"Hold it (AIS beacon) up in the air."- the higher the better so the signal is not blocked by waves. Shaking it may damage it, and turning it off disconnects you from rescue.</p>
<p>5. You are untethered and have fallen overboard but fortunately you are wearing an inflatable PFD. But it fails to inflate automatically so you pull the manual ripcord, and it still fails. What do you do?</p> <ol style="list-style-type: none"> 1. Swim as fast as you can towards the yacht. 2. Float on your back hoping air trapped in your foul weather gear will keep you afloat. 3. Open the Velcro or zipper enclosure to your flotation chambers, find the air tube, and orally inflate the PFD. 4. All the above 	<p>Know your PFD so you can quickly open up the cover and find the oral inflation tube! Don't waste energy swimming (which will dislodge air from your gear), and floating on your back won't keep you up very long without air in the PFD.</p>
<p>6. As you prepare to go back on deck to stand your watch, when do you clip onto your tether?</p> <ol style="list-style-type: none"> 1. Before stepping onto the companionway ladder 2. As you emerge from the hatch 3. When you are safely seated in the cockpit 4. When the skipper asks you to go forward to change to the storm jib 	<p>"Before stepping onto the companionway ladder"- crew can go overboard as soon as they emerge from the companionway. You should be clipped on while still below. When on deck you should stay clipped on until you are down in the cabin.</p>
<p>7. You are on the foredeck hanking on the storm jib. What is the best way to utilize your tether?</p> <ol style="list-style-type: none"> 1. Keep the tether hooked to your harness- it only gets in the way while changing sails 2. Clip it to the lifeline 3. If you have a two part tether, clip the short tether to the jackline; if only a six foot tether, go around the jackline back onto your D-ring 4. Clip it to the head stay 	<p>"If you have a two part tether, clip the short tether to the jackline....."- never clip to a lifeline- it is not meant for the load and if you go over you will be dragged in the water. Clipping to the head stay would allow you to go under the bow, and not clipping in at all is stupid in storm sail conditions.</p>

Question	Correct answer
<p>8. You are a man on watch in heavy weather and need to pee? You should:</p> <ol style="list-style-type: none"> 1. Go to the stern and pee pointing aft avoiding the yachts name on the transom 2. Same as (a) but clip in 3. Hold it until you go off watch 4. Stay in the cockpit, use the "P-cup" and pour over the lee side 	<p>"Stay in the cockpit, use the P-cup and pour over the lee side"- the stern is a great place to become an MOB. The risk begins when you try to get around the wheel. Hold it if you want, but.... For female crew, the choice is hold it or go below- both safe.</p>
<p>9. You are a man off watch at night and need to pee. you should NOT</p> <ol style="list-style-type: none"> 1. Quickly climb on deck and go to the stern without interfering with the on watch 2. Ask for the "P-cup," fill it while in the cabin, and pass it up on deck 3. Put on your boots and pfd-harness, clip in, come on deck, and take care of business 4. Use the head 	<p>NOT "quickly climb on deck and go to the stern...."- while off watch, use the P-cup and pass it up, or use the head.</p>
<p>10. You are racing in light-moderate wind and a line squall is forming on the horizon. You estimate 30 minutes until it hits. You should:</p> <ol style="list-style-type: none"> 1. Have the crew put on foul weather gear and Pfd-harness' 2. Make sure the main is ready to reef and all ports and hatches are shut 3. Plan a quick douse of the spinnaker or big jib and have a #4 jib standing by 4. All the above 	<p>"All the above"- be prepared! The squall may hit sooner than you think. Don't be complacent. It may be light air now, but just wait! Anticipate!</p>
<p>11. The squall is moving in and you have about ten minutes before it hits. You should:</p> <ol style="list-style-type: none"> 1. No rush- there is still plenty of time 2. Reef, drop the big headsail and set the #4. Turtle and stow below all other sails and gear. 3. Standby for big breeze and get every mile you can against the opposition. 	<p>"Reef, drop the big headsail...."- you must be ready with the correct sails up when the squall hits. At sea you cannot afford ripped sails, broken rigging or injured crew. Plus you want to be the boat that benefits from the squall, not running downwind the wrong way or laying on your side.</p>

Question	Correct answer
<p>12. The squall hits and you are sailing fast while the competition is knocked down with ripped sails. All of a sudden you hear a bang and the windward lower shroud is flying around. You must:</p> <ol style="list-style-type: none"> 1. Bear off fast 2. Luff all sails 3. Call Mayday 4. Tack instantly 	<p>"Tack instantly"- when anything happens with your windward standing rigging, you have seconds to tack and load up the other side of the rig.</p>
<p>13. You are helmsman running with a spinnaker up and the back stay breaks. You should:</p> <ol style="list-style-type: none"> 1. Gybe 2. Drop main 3. Call all hands on deck 4. Luff up to close hauled, trim mainsail hard, drop spinnaker 	<p>"Luff up to close hauled, trim mainsail..."- with the back stay gone, you must create an aft load at the masthead to save the rig, and reduce forward pull. The mainsail leech can support the mast while the headsails are luffed and dropped.</p>
<p>14. There is a galley fire with flames coming out of the companionway. You should:</p> <ol style="list-style-type: none"> 1. Send everyone below to fight the fire 2. Get everyone on deck and shut the hatches 3. Some crew fight the fire while others prepare for abandon ship 4. Jump overboard and swim away from the boat as fast as possible 	<p>"Some crew fight the fire while others prepare to abandon ship"- you only have minutes to control the fire, or you might have to abandon ship. Your crew must be split to focus on these two parallel functions.</p>
<p>15. A fire extinguisher classified as ABC is suitable for extinguishing:</p> <ol style="list-style-type: none"> 1. Wood and paper fires 2. Flammable liquid fires 3. Electrical fires 4. All the above 	<p>"All the above"- an ABC extinguisher deals with those three types of fires.</p>
<p>16. Fire extinguishers should be located:</p> <ol style="list-style-type: none"> 1. In the forward cabin 2. Near the galley 3. On deck 4. All the above 	<p>"All the above"- extinguishers must be distributed around the boat to be readily available.</p>
<p>17. While fighting a fire you should wear:</p> <ol style="list-style-type: none"> 1. Cotton clothing 2. Fleece and breathable polyester 3. Foul weather gear 4. Bathing trunks 	<p>"Cotton clothing"- fleeces, foul weather gear and nylon trunks will melt in heat and weld to your skin. Cotton singes but doesn't melt.</p>

Question	Correct answer
<p>18. What diagrams or "bills" should be posted prominently in the cabin?</p> <ol style="list-style-type: none"> 1. Abandon ship bill 2. Yacht diagram indicating thru-hulls and safety equipment 3. Watch standing schedule 4. All the above 	<p>"All the above"- these three "bills" cover important emergency and operational aspects of being at sea. Ships are legally required to have these. It's a good idea to post copies in the head for easy study.</p>
<p>19. If you need to abandon ship into the life raft, and can only grab one item, what would it be?</p> <ol style="list-style-type: none"> 1. Gallon water jug 2. Granola bars 3. Epirb 4. VHF radio 	<p>"Epirb"- the other items are nice to have, but with an Epirb you should have help on the way within two hours. Without the Epirb you could be out there a very long time.</p>
<p>20. How do you deploy the life raft?</p> <ol style="list-style-type: none"> 1. Inflate in the cockpit so it is ready to go 2. Throw overboard, inflate, and hold painter until abandon ship is ordered by the skipper 3. Throw overboard and inflate only when abandon ship is ordered by the skipper. 4. Throw overboard, do not inflate, wait for the skipper's order to abandon ship 	<p>"Once abandon ship is ordered by the skipper, throw overboard and inflate"- this is the trickiest question on the test. If inflated in the cockpit it will rip or blow away. If tossed, inflated and tied on, it will be damaged and probably blow away. How about throwing overboard and do not inflate? That doesn't work! The motion of the raft in the water will eventually pull the painter causing inflation. And then there is the risk of damage or being blown away. The correct procedure is to deploy the raft only when you are certain you will be boarding it.</p>
<p>21. You are in the raft and your boat has sunk. How do you utilize your handheld and parachute flares?</p> <ol style="list-style-type: none"> 1. Don't use any flares until you see a rescue plane or vessel, then fire one parachute 2. Set off a parachute flare every ten minutes 3. Ignite a handheld flare every hour 4. Don't use any flares until you see a rescue plane or vessel, then fire two parachute one minute apart 	<p>"Don't use any flares until you see a rescue plane or vessel, then fire two parachute one minute apart"- also a tricky question. It is a waste to use pyrotechnics unless there is rescue in sight. Why two parachutes? Usually a lookout will not be looking directly at the bearing where a flare appears; he might catch it out of the corner of his vision. The first flare gets his attention; the second confirms that the first was real.</p>
<p>22. The raft has been deployed and the crew are in the water pulling themselves along the painter to the raft. Who should pull themselves up into the raft first?</p> <ol style="list-style-type: none"> 1. every man for themselves 2. women and children first 3. weak crew first 4. a strong crew member first 	<p>"A strong crew member first "who can then help others into the life raft - this is the most efficient and reduces the time for the crew to be in the water, potentially drifting away from the raft.</p>

Question	Correct answer
<p>23. For comfort in the life raft:</p> <ol style="list-style-type: none"> 1. maintain maximum inflation in your PFD 2. bleed some air out of your PFD 3. take off your PFD 4. none of the above 	<p>"Bleed some air out of your PFD"- an inflated PFD is really uncomfortable, and also more easily punctured. But you want to keep it on in case the raft capsizes. With the oral tube you can always top it off.</p>
<p>24. When do you use the smoke flare?</p> <ol style="list-style-type: none"> 1. When you see the running lights of a vessel 2. At noon when the sun is brightest 3. Immediately after abandoning ship 4. In daylight when you see a plane 	<p>"In daylight when you see a plane"- smoke is not seen at night, and you only use pyrotechnics when you see rescue. Smoke is more effectively seen from a plane than a ship.</p>
<p>25. Once every watch you should check the bilge. You notice water rapidly rising towards the floorboards. You should:</p> <ol style="list-style-type: none"> 1. Call all hands to abandon ship 2. Turn on the bilge pump and go back on watch 3. Start the pumps and find the leak fast and slow it down 4. Call all hands and get on the radio 5. 1 and 2 6. 3 and 4 	<p>"3 and 4"- if water is rapidly rising, you are having an emergency, but you should not immediately abandon ship if there is any chance of fighting the flooding. With C and D, the crew is being mobilized, you are fighting the flooding, and notifying potential rescue. The speed of the flooding determines if you have a Pan Pan or a Mayday.</p>
<p>26. The helmsman loses steering control and the boat spins into the wind. You should:</p> <ol style="list-style-type: none"> 1. Drop the headsails and inspect the steering system for the problem 2. Radio Mayday 3. Order abandon ship 4. All the above 	<p>"Drop the headsails and inspect the steering system for the problem"- losing steering is not a reason to abandon ship or call for a Mayday. .</p>
<p>27. If the rudder appears to be intact but the cables, sheaves or chain are damaged:</p> <ol style="list-style-type: none"> 1. Start repairs 2. Radio a Pan Pan 3. Deploy the emergency tiller and then repair 4. Set a sea anchor 	<p>"Deploy the emergency tiller and then repair"- with an intact rudder, the emergency tiller should be useful. Consider using your autopilot (but that might not be allowed if racing, unless doublehanding.)</p>
<p>28. If the rudder is sheared off:</p> <ol style="list-style-type: none"> 1. Bolt your table to your spinnaker pole and try to fabricate a rudder 2. Deploy your drogue with two sheets lead mid ships port and starboard 3. Call Mayday, drop all sails and wait for evacuation 4. Deploy your emergency tiller 	<p>"Deploy the drogue with two sheets lead mid ships port and starboard"- this is the Mike Keyworth solution to be applied when the emergency tiller and autopilot cannot help because the rudder is gone or rudder post broken.</p>

Question	Correct answer
<p>29. For most offshore racing yachts, the storm jib is hoisted when the wind exceeds:</p> <ol style="list-style-type: none"> 1. 20 knots 2. 30 knots 3. 40 knots 4. 50 knots 	<p>"40 knots"- an offshore racing boat should have a number four jib that can take the boat up to about 40 knots. Some have a number five that goes to the upper 40's. Then it is storm jib time. These sail changes should be bare headed (take one down and pull aft before hoisting the other) for good seamanship.</p>
<p>30. For most offshore cruising yachts, the storm jib is hoisted when the wind exceeds:</p> <ol style="list-style-type: none"> 1. 20 knots 2. 30 knots 3. 40 knots 4. 50 knots 	<p>"30 knots"- most offshore cruising boats have roller furling jibs that can take them up to about 30 knots. Then either a small heavy staysail can carry them up a bit, or a storm staysail. If the boat has a hanked on jib, the next sail might be a smaller jib then the storm jib, or straight to a storm jib and staysail. Lots of choices but why push the big sails past 30 knots?</p>
<p>31. Most offshore racing yachts go to the first mainsail reef at:</p> <ol style="list-style-type: none"> 1. 10 -15 knots 2. 15-20 knots 3. 20-25 knots 4. 25-30 knots 	<p>"25-30 knots"- offshore racing yachts have a greater selection of jibs, a larger crew to handle sail changes, and want to go fast. By changing jibs, and usually bending the mast to flatten the mainsail, the full size main should be able to go up to 25-30 knots true wind speed.</p>
<p>32. Most offshore cruising yachts go to the first reef at:</p> <ol style="list-style-type: none"> 1. 10-15 knots 2. 15-20 knots 3. 20-25 knots 4. 25-30 knots 	<p>"20-25 knots"- cruising boats don't want to continuously change jibs, and reasonable comfort trumps max speed. Single and doublehanded racers, with no crew weight on the rail, also reef early.</p>
<p>33. Offshore racing yachts usually go to a storm trysail at:</p> <ol style="list-style-type: none"> 1. 20-30 knots 2. 30-40 knots 3. 40-50 knots 	<p>"40-50 knots"- offshore racing boats usually put in a first reef at about 28 knots, then a second at 32-35 knots. By 40 knots they either need a third reef or to preserve the racing mainsail can consider the trysail. Certainly by 50 knots the racing main should be down.</p>
<p>34. A storm trysail can be rigged with twin sheets run to each quarter or it can be set using the boom and trimming it with the mainsheet tackle.</p> <ol style="list-style-type: none"> 1. True 2. False 	<p>"True"- the basic trim of a trysail is to lead a sheet to each quarter and trimming both sheet s to position the sail. Securing the trysail to the boom using a reef line and a safety line allows for efficient trimming with the boom and main sheet. This works best if the mainsail has been stowed below in anticipation of the storm. If the mainsail has not been stowed below, check regularly to be sure it does not get chafed between the reef line and the boom. The presence of the mainsail has no impact on how well the mainsheet works for trimming the trysail</p>

Question	Correct answer
<p>35. You should initially test your storm sails:</p> <ol style="list-style-type: none"> 1. The first time you experience gale conditions 2. In light air 3. In moderate winds 	<p>"In moderate winds"- if you wait for the gale you have serious problems. In light air the real setting and trim leads cannot be accurately established. Moderate air fills the sails and facilitates marking leads and actually sailing along. Then wait for the next stinky day and go out with the storm sails.</p>
<p>36. In a gale, the permanent back stay should be:</p> <ol style="list-style-type: none"> 1. Set to maximum tension to prevent the rig from moving around 2. Set to moderate tension to keep mast stable 3. Set loosely to reduce compression on the mast 	<p>"Set to moderate tension to keep mast stable"- in heavy weather you do not want the mast jumping around, nor do you want it heavily compressed. Ideally a bendy racing mast will have 4-6 inches of positive bend with a tension about 2/3 maximum. The result will be a stable mast with enough bend not to invert (middle of the mast pop aft) when pounding into waves. A cruising boat with forward and aft lowers, and a stiff mast, may not need bend. But moderate tension is still beneficial.</p>
<p>37. You are offshore in the northern hemisphere. The barometer is dropping fast, the wind velocity is increasing and steadily blowing from the east/southeast, and the clouds are getting lower:</p> <ol style="list-style-type: none"> 1. The low is moving away from your position 2. The low is moving towards your position 3. The low will pass well to your south 4. The low will pass well to your north 	<p>"The low is moving towards your position"- a dropping barometer with rising wind and deepening clouds with no change of wind direction means the low is aiming at you! If the center is going to pass well to either side, the wind would back or veer as the low center changes its angle from your position.</p>
<p>38. What is the "dangerous quadrant" for a low in the northern hemisphere?</p> <ol style="list-style-type: none"> 1. The northwest quadrant with east/northeast wind 2. The southwest quadrant with the trailing cold front 3. The southeast quadrant with strong south/southwest winds 4. The northeast quadrant where the east/southeast winds 	<p>"The northeast quadrant..."- this example is for the northern hemisphere and the typical low that heads up the east coast. All sides of a big low have wind and waves, but the worst corner of all is the "northeast" (or forward right) where the southeast wind blows you into the path of the low. Also the forward speed of the storm reinforces the wind velocity on the right (east) side of the low. You need to plan ahead so you are not in this quadrant.</p>
<p>39. Why is the "dangerous quadrant" so dangerous?</p> <ol style="list-style-type: none"> 1. The velocity of the wind and the forward motion of the low are additive and therefore windier 2. The wind is blowing the yacht into the path of the low 3. Both 1 and 2 4. Neither 1 nor 2 	<p>"Both A and B"- see 37</p>

Question	Correct answer
<p>40. The primary goal of the Quick Stop man overboard maneuver is to stop as close to the MOB as possible. Why is the jib sheet left cleated to windward?</p> <ol style="list-style-type: none"> 1. To slow the boat in the "heave to" position 2. To make it easier bearing off to initiate the return to the MOB 3. To make it easier dropping the jib on deck when the yacht runs downwind 4. All of the above 	<p>"All the above"- in MOB drills, there is a lot to do. Releasing the jib sheet is not necessary and makes the rest of the maneuver more difficult.</p>
<p>41. As the yacht pulls alongside the MOB and the heaving line is thrown from the foredeck, what is the most important goal?</p> <ol style="list-style-type: none"> 1. Avoid scratching the hull 2. Don't hit the MOB with the heaving line 3. Make contact with the MOB and secure him alongside 4. Avoiding wrapping heaving line in prop 	<p>"Make contact with the MOB and secure him alongside"- the most challenging part of the MOB maneuver is often the last ten feet- making contact and keeping hold of the MOB.</p>
<p>42. In heavy weather, the following situations can be dangerous:</p> <ol style="list-style-type: none"> 1. Shoaling water depth 2. Wind against current 3. Proximity of a leeward shore 4. Rapidly changing wind direction 5. All the above 	<p>"All the above"- shoaling water creates breaking seas (Google "Low Speed Chase and Farallon Islands"); wind against current creates steep often breaking waves; proximity of a leeward shore means you have no sea room for safety; rapidly changing wind direction sets up conflicting trains of waves.</p>
<p>43. A Coast Guard helicopter is lowering a basket to your yacht on a cable. You should:</p> <ol style="list-style-type: none"> 1. Grab it as soon as possible 2. Ignore commands from the helicopter over VHF 3. Let the basket or cable ground on the sea before touching it 	<p>"Let the basket or cable ground on the sea before touching it"- a cable from the helicopter has a dangerous static electric charge that needs to be grounded before any crew touch it.</p>