20 STEPS TO THE START LINE

By GLSS member, Patrick Nugent, *Rode Show*, January – June, 2002 & Updated 10/2013

Editor's Note:

Originally this material was written by Pat Nugent as a series of Road Show Articles that explain how to prepare for and enter the Mac Solo Challenge. Although his articles were written for the Mac Solo they also apply to anyone contemplating doing any of the GLSS Solo Challenges including the Trans Superior Solo Challenge, the Erie Solo Challenge and the Ontario 300 Solo Challenge. Even if you are not planning to do a Solo Challenge his insights are useful for anyone contemplating a solo or short-handed sailing endeavor. A few things have changed since Patrick wrote his articles so we have endeavored to update his original documents without modifying his original intent or flair. More information is available on the web – see left hand menu under "Education & Safety".

It is suggested that you read this list all the way through to get the big picture then go back and follow it like and instruction manual. The race requirements can be found on the web. There is a home page for each race with contact information for the Race Chairman, a link to important stuff like the Notice of Race, Sailing Instructions, and Required Equipment List. Even if these documents have not been posted for the next summer the ones for the last summer are left on the web. Things don't change very fast so they are still a good reference, and don't be shy about contacting the Race Chairman if you have questions.

Step #20 -- Reserve the Start Date on Your Calendar

The successful completion of a Mackinac Solo Challenge starts with commitment. Although this "commitment thing" is intangible, it belongs at the top of the list. You will be relying on this commitment as your cornerstone. And it continues until you safely arrive on Mackinac Island.

Whoa! That sounds pretty serious! But trust me... The seriousness within all of the above is appropriate. Anything short of a commitment is wishy-washy talk. You might as well put it with all of the other famous statements: "I was going to buy Intel when it sold for $2 per share, but the bank was closed that day." "I was planning to run a marathon last year, but it looked like rain." If your commitment is firm in late January, then you are on your way to the finish line at Mackinac Island. However, if you don't step up to this commitment right now, then you'll have trouble making it to the starting line.

By setting this date on your calendar, you will suddenly notice that a lot more becomes clear. Talk with your boss and co-workers to make sure that you can take the time away from the day-job. Set aside time to move your boat to the starting line. Set aside time to do the Mac-Solo itself. Set aside some time for R&R and camaraderie on the Island. And finally set aside some time to deliver your boat back home. In addition to the focus on the Start Date, you will find that there are a limited number of days, and a limited number of weekends to prepare yourself and prepare your boat. If you are anything like me, calendars and lists become an integral part of successful planning. Therefore, start the planning now. Commit yourself to it!

Step #19 -- Tell Your Spouse, Family & A Close Friend

You might look at Step #1 (Your commitment to do the Mac-Solo) as planting the seed. Now it's time to nurture that seed so it grows. This next step is to tell your spouse, family and a close friend of your plans to do the Mac-Solo. You may not believe this now, but you will need some strong support later on. In fact, you will want some of their support right away.

When you announce your intention to do the Mac-Solo this year, it is likely that you will hear comments that sound something like this: "What? Are you nuts? I don't know why the hell anyone would consider sailing the Mackinac alone! I have trouble sailing the Mackinac Race as a crewmember!" Of course, what they are really saying is; "Wow!! That's something I've always wanted to do! I could never work up the nerve to commit to a Mac-Solo."

You see... Good ol' boys don't say what they really mean when they talk to each other. (Somehow, spouses already know this.) Often a translation is needed. And without an effective translation, it is too easy to get discouraged. My

experience has been that my spouse, family and a close friend are the most effective translators to keep me on the right track. Without this translation or support, I find that other issues begin to cloud my objective.

Later on, you will be amazed at the different ways that your support group comes through. For example, your teenage daughter will surprise you some day and suggest: "Hey Dad! Can I order pizza and bring a couple of my friends to the boatyard while you are working tonight?" You find out in a hurry that anyone can eat a pizza, but having one of your kids show up with her friends at your boat is the extra "umph" that you need to finish a tough project.

If all of the above sounds so easy that you are inclined to skip this step, let me put it another way: If the people in your life who are important to you decide to oppose you with your commitment to do the Mac-Solo, it will be tough sailing. Ahhhh.... Now it is a little bit clearer, isn't it!!!

Step #18 - Get a Medical Check-up

For quite a few years, I was in a "tough-man" contest with my doctor. I am proud to say that I won the contest every year. The rules were simple: I avoided my doctor. My doctor didn't call me. I saved a lot of money. Poor ol' doc lost by forfeit every year. Man I was tough. My wake-up call arrived when a close friend (that I had not seen in a while) told me that he had survived prostate cancer. I was shocked & amazed. This guy is my age. When I asked him, "How did you survive it?" He told me that he caught it in time through a routine exam. All of a sudden, the rules had changed in my "tough-man" contest. I realized that I was the one chalking up the forfeit every year...
I know that everyone has their own story. And everyone has their reasons. But think about this for a minute: One of the most cost-effective gifts you can give to yourself is to get a good lab-work analysis. This is a great starting point. Call your doc and ask to have the lab-work set up, and then follow through with a check-up. When you do the Mac-Solo in June, I can guarantee you that your system will be pushed to its limits. Your sleep will be non-routine. Your eating will be non-routine. You will be physically and mentally exhausted. With all of those guarantees, you'll need some assurance that your "internal factory" is working the way it should. You don't want to find yourself 40-miles offshore to discover that you have some type of chemical imbalance that's ready to "kick in" because everything else is so stressed.

If all of the above sounds like a bunch of baloney and you're ready to say, "Hey Nuge! Stick to solo sailing topics!!" I'll respond by saying, "I am right smack on the rhumb line with this one." Within our GLSS Mission Statement, it says that we are organized "...to encourage the development of suitable techniques, equipment and gear for shorthanded passage under sail..." The most important "piece of equipment" on the boat for a safe solo passage is the skipper. As skipper, it is our responsibility to make sure that we operate and function the way we were designed.

Look out the window. There's still some snow on the ground. You have plenty of time to get this one crossed off your list. If you're still in doubt, and you can't decide if you want to get this check-up or not, get a second opinion from your spouse or significant-other! Then, let me know who wins the tough-man contest!!

Step #17 - Review the GLSS Equipment List

Get a copy of the GLSS Equipment List. You can find it on the web: GLSS Standard Equipment List
Oddly enough, one of the frequent comments that I hear as a reason for not doing the Mac-Solo is: "I took a look at the equipment list, and I don't have a lot of that stuff." I know exactly what you mean. But let's face it, solo sailing carries a higher level of risk, consequently it is not unreasonable to have a few added layers of protection to help manage that risk. Your initial review of this list may be an instant turn-off because of its apparent financial impact. But... Not so fast... You've got some options here....

The big-ticket item on the equipment list is the life raft. One option to meet this requirement is to pull out your favorite marine equipment catalog and to order a new one right out of the box! This is the most effective but also the most expensive. Another option is to borrow a life raft from a trusted friend who may own it for the crewed Mac Race in July or possibly the Doublehanded Race since the dates of these races do not conflict with each other. This option has its risks since life raft owners may not allow this key safety equipment out of their sight! By keeping tight control, the owner knows that its integrity has not been compromised. You might also consider posting a "Life raft Wanted" note on your yacht club bulletin board. You may be surprised of the results! That's how I got my life raft! In fact, I had two responses. There is a surprising turnover of Mac Racers each year, and those retiring from the race

are often anxious to "liquidate" their big-ticket items. It is also possible to rent a life raft with up to date inspections. Other GLSS members can help you find a life raft to rent.

If you take the time to go through each line in the equipment list (similar to the above option analysis with the life raft) you will find that the list is very manageable. Hacksaw? You've probably got one. Spare VHF antenna? You've probably got one - a handheld VHF meets this requirement. Spare navigation lights? Borrow from a Mac racer. Extra ground tackle? Borrow from a buddy who doesn't have his boat launched yet. At first glance, the list could look like a monster. My advice is to go through it line-by-line and consider your options for the more difficult items. Yup - it is very manageable.

So... That doesn't seem so difficult now, does it? You're getting pretty good at this equipment list, eh? So... Did you happen to notice what might be missing? How about the man-overboard pole? Fact: It is not on the list AND it is not required. Whoa! Think about that for a minute. That's a sobering thought... Singlehanded sailing has its unique requirements - and a MOB pole is not needed. Give yourself some quality time for studying the GLSS equipment list. It's important.

Step #16 - Visit Your Boat! - Make a List

This step is a good one - but you gotta be careful. If you do it right, it will accelerate your planning and comfort level as you prepare for the Mac-Solo. If you do it WRONG, you'll get brain damage and may not launch your boat until September!

First of all, look at the date. We're still in the middle of winter. It is the last week of February! Therefore, it is important that you don't go beyond the straightforward simplicity of this item. This step does NOT say: "Go to your boat and start working." The only tools that you need are a pencil and paper. And what the heck... Bring a lot of paper!

Take a walk around the hull, and start your list - anything is fair game to be added to the list. Re-paint the boot stripe. Paint the cradle. Fix the ding in the gelcoat. Sand the bottom. Scotch-pad the waterline. Paint the bottom. Install a swim ladder. Wax the hull. Pull seaweed out of the knot meter impeller. (Remember! We're only listing! We're not doing! Don't get distracted from the list.)

Go topside and check out the deck. Continue adding to the list: Apply a fresh coat of Sickens. Repair the leak in the port window seal. Fix the starboard lifeline gate. Buy a new mast boot. Paint the cockpit. Re-attach the GPS antenna. Get rid of the rudder-post squeak! Buy cockpit cushions. Remember... Everything is fair game to be added to the list! We're not prioritizing here.

Go down below and go on with your list. Add a coat of oil to the teak. Repair the depth-sounder. Fix the leaky window. Add more storage space! Check the date on the flares; buy more flares! Buy new dock lines. Change the oil. Take out the trash - it stinks in here! Time to go home! Besides, the list is a mile long!

Now. Find a warm place. Sit in your favorite chair! And start going through your list. If you think that you have to do it all, then you will get brain damage! Take a yellow highlighter and mark the items that MUST be done in order to do the Mac-Solo. Don't confuse MUST be done with SHOULD be done. Example: Depth-sounder repair gets highlighted, but the Sickens project does not. (Sickens is not necessary for a safe solo passage!) Stick to the objective, and I am convinced that you will be amazed how short your "must do" list actually is. In addition, you have put the element of timing in your favor. For example, send in your depth-sounder now so that it is repaired for warm-weather installation later. Wow!! Your list got a lot shorter, didn't it? In fact, you're closer to the Mac-Solo than you thought, aren't you? Cool.

I know what you are thinking: "C'mon, Nuge! Who the hell would make Step #16 on the list to be: 'Make Another List'?? You're anal-retentive!" Saint Kathy sums this up best when she says, "What do you expect? My husband is an engineer."

Step #15 - Get a GLSS Mentor

Whenever a few GLSS members get together, a common question asked is: "Who was your contact for your first solo?" It seems that all of us can name that one individual who took the time to answer our many questions as a

first time challenger. At the awards luncheon after the 2001 Mackinac Solo, we formalized that role by recognizing the "mentors" of first time finishers at Mackinac Island.

For years, the GLSS has worked on its mission "...to encourage the development of suitable techniques, equipment and gear for shorthanded passage under sail..." Fortunately, a lot of these solo techniques are documented - the GLSS Required Equipment list is a good example.

However, a lot of solo sailing techniques are not specifically documented. And that's good! Stating a general requirement tends to encourage discussion and creativity. A good example of a "general requirement" is the ditch bag. The GLSS Equipment List specifies that a watertight bag of self-selected survival gear is required.
So... Now you ask, "How do I know what to put in my ditch bag?" The answer is, "Talk to a GLSS member (a.k.a. your mentor!)!!" But it is not just the contents of the ditch bag - it is solo sailing techniques in general. Every question is important: What do you eat? How do you sleep? Where do you dock the boat just prior to the start? Why do you have 3 big knots at the end of your spinnaker halyard? Do you fly a spinnaker while solo? How do you jibe? What does the finish line look like at night? What am I forgetting?

Of course, it is not mandatory that you have a mentor. But it is a fast and effective way to get the information that YOU need. You say you don't know a member? Then go to the GLSS Spring Safety Seminar & Open House and pick one! We have several in different locations so check the Calendar on the GLSS web site for dates and locations. (Some members are pretty scary in person, but trust me - your pick will be a good one!) In 1991, Dick Lappin was my contact for all the questions that I had. I can still remember some of the things that I asked Dick. "What time should I plan to leave the dock for a 9:30 start?" "What do you pack in your ditch bag?" "How do you safely dock your boat when you arrive all alone at the Island?" "What does your overboard recovery system look like?"

If you can't get to a safety seminar send us a message using the GLSS "Contact" form on the web. Tell us a little about yourself and your boat, including where your home port is located, and what race you are interested in and we will fix you up with a contact who can answer your questions.

My advice is to put your mentor to work right now! You know that LONG to-do list that you just put together in Step #16? Show it to your mentor. Start shooting the bull with your mentor and get some advice and encouragement so you can decide how to separate the "must do" from the "should do". Besides, it's fun to talk about boat stuff while there's snow on the ground!

Step #14 - Evaluate Your Electrical System

The electrical system on the boat is just like the collection basket at church: "Put it in if you got it. Take it out if you need it." Now...the dangerous outcome from this simple observation may be the number of malted beverages that could be consumed as you try to argue the fine points of this comparison with Father O'Malley!

The reason listed most often for pulling out of the Mac Solo is electrical failure. Therefore, it is worthwhile to spend some time ensuring that your electrical system is performing as designed. If you look at your favorite marine equipment catalog, you will notice some high-end pricey electrical monitors that you could purchase and install. These are expensive but do a great job of assessing your electrical usage and monitoring battery performance. But be careful here. You might be spending the big bucks to hire Arthur Anderson to tell you that your church is bankrupt! You're probably better off to put ol' Arthur on the sidelines, and spend the money on a few card tables so you can have a bake sale. Besides...you'll have more fun.

If you have a battery volt meter and ammeter installed these can help you assess your battery use and performance if they are accurate enough. Alternately go to your favorite Radio-Shack-type store and buy a digital volt-amp meter. (Make sure that it can read volts to the hundredth. And make sure that it can read at least 10 DC amps.) Read the owners manual and be ready to refer to the section that describes parallel for reading volts, and series for reading amps
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Now, go to your boat. Shut off everything in your electrical system and set your new meter to read amps. Then go to your battery and disconnect everything from your negative battery terminal. Connect your meter in series between your negative battery terminal and anything that was connected to it. Your ammeter should read zero (since you previously shut off everything.) If your ammeter doesn't read zero, this means that you've got some

sticky fingers in the collection plate! Start disconnecting "stuff" until you find your amp leak. (Ahhh...if Father O'Malley only had it so easy!)

Now let's check out the batteries. (I'll focus on the traditional lead-acid type.) Top-off your battery cells with distilled water. A turkey baster works great for this. Shut off your electrical system, and turn on your battery charger. Bring your batteries to a full charge. Once fully charged, shut off everything and let your battery sit idle for at least 30-minutes. Set your new volt-amp meter to read volts, then read the voltage across your two battery terminals. A fully charged lead-acid battery should read about 12.70 volts.

It's now time to turn "stuff" on and find out what your battery has under the hood. Turn on whatever you plan to use: Speedo, VHF, Wind Instrument, Running Lights, GPS, etc. In addition, turn on a cabin light to simulate the power draw from your autopilot. Let this set-up run for two hours, then shut off everything. Let your battery sit idle for at least 30-minutes before you read the voltage across your two battery terminals. Always read your battery voltage under no-load conditions after 30-minutes idle. (Let's assume for this example that your reading was 12.63 volts.) Aficionados of lead-acid batteries live and die by one big rule: "Use only the top half of your battery capacity." This rule maximizes storage capacity as well as extends years of service. The voltage of a lead-acid battery at half-capacity is 12.20 volts. (Don't confuse lead-acid with NiCad batteries. It is best to run a NiCad all the way down to maximize storage and extend service life.) Now it's time to buy your favorite 6th grader a Big-Mac in return for the answer to this problem: "If it takes 2 hours to go from 12.70 volts to 12.63 volts, how long will it take to go to 12.20 volts." This answer gives you the number of hours that you can run your chosen electronics before recharging your battery.

So. We've talked about the amps going out. And we've talked about how many amps you can store. But how do you get those dog-gone amps back in? "And that's my big problem, too!" says Father O'Malley! "I've always got trouble filling up the basket!"

Your alternator, in conjunction with your voltage regulator, is the typical method for recharging marine batteries while at sea. If you can, pull your alternator off the boat and take it to your favorite boat-shop or auto parts store. Ask them to bench test it. They'll be able to tell you if your alternator and regulator are running to their specifications. Chances are that they're okay. If you need replacement parts, insist that they are USCG approved. Marine engine compartments are designed to have explosion-proof electronics - auto engines are not. Re-install the alternator on your boat with a new v-belt.

You've got to wait until you're in the water for this part. Get your new voltmeter and prepare to run the reverse scenario as compared with running the battery down. Start with your battery at half-capacity, 12.42 volts. Turn your "stuff" on as before. While at the dock, idle your engine and let your battery charge for one hour. Then shut off everything. Let your battery sit idle for at least 30-minutes before you read the voltage across your two battery terminals. This final volt reading allows you to estimate the charging time required to refill a specific amount of battery capacity (or voltage). Unfortunately, this method will not predict the capacity that you might have if you were to charge for an additional hour. You'll have to run a 2-hour charging test to determine the capacity gained from running that additional hour. Standard voltage regulators put most of the capacity into the battery early in the charging cycle. The charge rate decreases as your battery starts taking on additional capacity. (Check out your favorite marine catalog for options regarding fancy (smart) voltage regulators.)

Sometimes people in their zest to minimize boat weight drain their fuel tank down to the water and dirt in the bottom of the tank. Engines don't run very well on that stuff and when the engine won't start and the battery runs down the autopilot won't work and you will be hand steering the rest of the way to Mac Island. That said be sure you have enough fuel in the tank to run the engine to charge the battery as needed during the race, and some spare to get out of the way of a freighter, as well as getting to the start line and to the dock at the end of the race. Figure out how fast you need to run the engine to charge the battery, usually about half speed, as it will take considerably less fuel than steaming at full throttle.

There you go. After a few adult beverages, both you and Father O'Malley find yourselves with more and more in common: Put it in if you got it. Take it out if you need it. Get rid of Arthur Anderson. Have a bake sale.
Find the leaks. "I'm starting to get fired up!" says Father O'Malley. "How can I find out more about this solo sailing stuff?" "It's easy!! Come to the GLSS Spring Safety Seminar and Open House." Check the GLSS website for details.

Step #13 - Evaluate Your Autopilot & Steering System

The previous step (Step #14) in the countdown for the Mac-Solo stated that the reason listed most often for pulling out of the Mac Solo is electrical failure. Let's second-guess that for a moment. Consider your back-ups in the event of an electrical failure: VHF Radio - use your handheld VHF. Running lights - use your spare running lights. GPS - use your handheld GPS or even dead reckon! Cabin lights - use a flashlight. Autopilot - uh-oh, no back-up for the autopilot. (Of course, some autopilots or wind vanes are 100% mechanical and they do not require battery power.) However, the bottom line is the same - if you lose your autopilot, it will be difficult to complete the Mac-Solo.

If you don't have an autopilot you need to get one and install it. I think they rate them for day sailors so be sure you get one rated to handle a boat twice you displacement.

Take the time to inspect your autopilot now. If a portion of your system has electronics that are exposed to the elements in your cockpit, you have some vulnerability here. If you can, open up your electronics enclosure. (Make sure you don't void your warrantee!) Take a close look for water stains or even water damage. If the damage looks significant, send the unit into the manufacturer to ensure its reliability. Inspect the o-ring seal. Make sure that it does not have any imperfections. Clean any staining or crud from the sealing surfaces and from the o-ring itself. Lubricate the o-ring with a thin film of silicone grease, and carefully reassemble.

Inspect your electrical cable. Read your owner's manual to make sure that your power supply cable is the correct size. Ensure that your terminations are firm. Re-do the terminations if necessary. Locate the fuse for your autopilot. (There had better be one!) Make sure that it is the correct amperage by comparing to the owners manual. Go to Radio Shack and buy a couple of spare fuses!

Inspect the linkage between the autopilot and your tiller, wheel or quadrant. Make sure the connection points are still firm. If you have a wheel and your connection is via a drive belt, convince yourself that the belt is as good as new! And what the heck - buy a spare belt.

Disconnect your autopilot, and manually operate your steering system so that the rudder swings to its port & starboard endpoints. It should move easily - especially if you're still in the cradle. If you hear squeaks, that's the indication of the start of problems. Squeaks mean that there is resistance working in your steering system against your autopilot. Get some grease to the squeaky spot! (That's easier said than done!!) If you have a wheel, inspect the entire linkage. Chain & sprocket mechanisms should have a thin film of lubricant. Inspect your drive cable around the quadrant. Ensure there are no burrs in the cable. The cable should be moderately tight.

Have you set up your autopilot according to the instruction manual. Some require you to swing the boat to set up the compass. Do it! Some new ones also have an automated calibration procedure. Be sure to follow that procedure fist or do the manual setup. Then go sailing in different amounts of wind and different points of sail That auto setup procedure you did under power might not work with a 20 kt. breeze on the quarter and following sea. Some settings on some autopilots can be changed while the autopilot is in operation so figure out how to use this and the other features as it may greatly reduce the amount of hand steering necessary to get to the island.

I can tell that I am beginning to ramble! If you are asking, "Gee, Nuge!!! Do you expect me to check everything??" The answer to that one is a clear, "Yes!" You can't afford to have your autopilot quit on the Mac Solo - it's your crew! As any seasoned skipper knows, you've gotta take care of your crew! The last thing that you want is a mutiny on your hands!!

Step #12 - Evaluate Your Stay-Dry Clothes

About 20 years ago, I did my first long-distance race. Man - was I ever nervous! I felt like a Pilgrim leaving Mother-England. I'm sure I drove my skipper nuts with all of my goofy questions. One of my concerns was clothing - what should I pack? My skipper told me to bring two small duffel bags with a complete change of clothes in each one. I packed two sets of blue jeans, flannel shirts, sweatshirts, etc. I felt like Noah packing the arc - two of everything! When I arrived at the boat and my skipper saw my gear, I'm sure he muttered under his breath, "I thought I told him to bring two SMALL duffel bags!"

During the first six hours of the race, we were on a beat. As luck would have it, one of my duffel bags fell onto the cabin sole. And as more (un)luck would set in, there were enough leaks in the boat so that my duffel bag was now sloshing in water. I was relieved to find that my second duffel of dry clothes was secure and dry.

After some time had passed, darker clouds began to build in the northwest. I put on my foul weather jacket to help as a windbreaker. Before I knew it, we were in a squall. There was so much deck-work that I never took the time to put on my foul weather pants. I was soaked - but that was okay since I knew I had a set of dry clothes down below. Soon after things settled down, I changed out of my "wets" and into my "drys". I was so comfortable that I was ready to sit by the fire with a good book and with one of those flavored coffee things! I was at peace with the world! I had successfully achieved my first day at sea.

The next day appeared to be an identical repeat of the first day. No problem-o for me! I was "Sail-bad the Sinner"!! However, when the first few rain drops appeared, the skipper said, "Hey Nuge, didn't you mention that you're wearing your only dry clothes?" When I responded, "Yes", my skipper suggested, "If I were you, I would put the wet clothes back on until we're through this squall." I was ready to melt.

I took the skipper's advice and saved my dry clothes in a secure place, and I put my wet clothes back on. With blinding clarity, I could easily understand why babies cried with a wet diaper. I was miserable. I sat on the high side in despair as I shivered and wished, "Can't someone invent something to prevent this miserable fate?"
Well, "who'd a thunk" that my wish would be granted?!!! Fleece! Fleece! Fleece! Most kids ask their parents, "Dad, what did they do before they invented computers?" My kids ask me: "Dad, what did they do before they invented fleece?" Today I own fleece pants, fleece shirts, fleece vests, fleece hats - and yes&ldots;fleece (capilene) underwear!! And I only have to pack one duffel bag. Fleece is this magic fabric that wicks moisture from the warm side (your body) to the cold side. Finally! They found a way to keep you dry when you're wet! If someone didn't receive the Nobel Prize for this, they should!!!

So. You say, "Hey Nuge! How can I find out more about this fleece stuff?" It's easy, mates! Come to the GLSS Spring Safety Seminar. And what if you can't make it to the Safety Seminar?? Send Michael a note at mdclow@warmgear.com and ask for the true scoop or check out TheYachtsman.com. Michael has a super e-mail forum. Michael knows more about "warmgear" than my kids know about computers!! Send him a note!

Step #11 - Study Your GPS Manual, Review Charts, Enter WP's

Back in the olden days when Loran's were seen to be a frivolous luxury on a pleasure boat, dead reckoning was the mode of operation. Consequently, skippers knew their charts & plotting tools as a second language. We shared "tricks" to help us remember the important stuff like, "Can dead men vote twice?" That was the mnemonic to help us remember C-D-M-V-T or compass, deviation, magnetic, variation, true. If that still sounds Greek, that helped us translate from the actual compass reading at the helm to the true reading on the chart. And... All of this to give us our latitude and longitude within a half mile or so!

The electronic age entered yachting with the speed of a Great Lakes thunderstorm! The Loran entered the scene only to be replaced more quickly by the GPS. Today you can buy a GPS with electronic charts included for less money than you can buy a set of (paper) charts. At first glance the GPS is a piece-of-cake right out of the box! Connect two wires to the battery. Put up the antenna. And turn it on! Bingo - you've got your latitude and longitude to three decimal places and within 10-feet of accuracy! It's no wonder that dead reckoning has become a lost art! Although dead reckoning was a lot of work for a rough estimation of position, the process gathered a ton of auxiliary information. For example, we jotted notes which read something like, "Expect 25-feet of water on this heading in about 90-minutes." This so-called auxiliary information warned us of upcoming shallow water as well as provided us with a confirmation of our dead-reckon position. A seasoned skipper would translate the bottom line of this entire process to: "If you know where you are, you can't run aground."

With a leap of faith, we could take that last statement and assume that we will never run aground since we have a GPS onboard to tell us exactly where we are to three decimal places! WRONG! I can remember hearing a VHF conversation between a skipper and the Coast Guard. He claimed that his GPS was giving bad readings, he was aground and needed assistance. The Coast Guard asked what the "bad readings" were on the GPS. I copied those reading and looked at the chart. His so-called "bad readings" put him in 2-feet of water surrounded by rocks. Chances are that he knew exactly where he was via the GPS, but had no idea where he was on the chart!

Take some time to read your GPS manual - from cover to cover. Read it like a textbook that you will be tested on. Plan to get 100% on your test. You can put your GPS to work for you, but you have to understand what it can do first. For example, assume that you will be tacking through Gray's Reef - why not set up a cross-track alarm that would automatically mark the safe boundary of your tacking limits? Enter various waypoints in your GPS all the way up the lake. Enter WP's for the things you want to avoid as well as WP's for your intended path. Enter a seemingly "innocent" un-lit can. During the night (or in fog) a quick verification with your GPS can tell you that this can is a quarter-mile to starboard - or a quarter-mile dead ahead! Put a notation on your chart for the points that you have transferred into the GPS.

Even if you work hard to load all possible Mac-Solo waypoints into your GPS, I can guarantee you that you'll still be doing some "button pushing" sometime during the Challenge. However, you can work NOW to guarantee yourself that you won't have to read the GPS manual during the Mac-Solo! There's a wealth of information in your electronics. Plan to use this for your own safety!

One more loose end to wrap up... If the mnemonic "Can Dead Men Vote Twice?" is used to translate from the actual compass reading at the helm to the true reading on the chart, then it begs the answer to: "What is the mnemonic to go from the chart back to the helm?" We'll find out how many old salts we've got out there!!! And what is this all about? The compass reads magnetic readings which here in the Great Lakes are several degrees greater than the true course readings on the chart. Be sure you understand how to make this conversion.

Step #10 - Develop Your Overboard & Recovery System

This item within the “TOP-20 Countdown to the Mac Solo” is one of the most important. One of our GLSS rules states that we must be able to demonstrate a re-boarding system for the solo. It's a pretty general requirement for a very important task. It is appropriate that the rule is in general terms since each boat has its unique characteristics. The re-boarding system will likely vary from boat to boat. However, it is worthwhile to share what we do!

Too many times we hear about boating accidents that result in the loss of life. Investigations list issues that contributed to the disaster. And often, as a sideline to the investigation, there is a phrase that says,"...the boat was towed ashore..." Or to put it another way, most of the time, the boat survives the incident.

At the front end of the preparation for the Mac Solo, we work hard to ensure that the autopilot is tuned to the boat to keep it sailing while we do other things. A well-tuned autopilot will continue on its course even if we fall off the boat - that's a scary thought. It's important to develop a foolproof technique to stay with the boat during a disaster.

If we could pick the time and place to fall off the boat, it sure would be a lot easier. Why not pick a Sunday afternoon, temperature 87-degrees, sunny, and not a wisp of wind. And what the heck, why not have the shampoo fall in the water just moments before! Unfortunately, you'll probably have more luck at the casino! Plan for the worst. Assume the wind is blowing 20-25 out of the northeast. It's raining, dark, and you have fallen off the high side of the boat - at the bow.

The first key to my overboard recovery system is my tether. GLSS rules say that it must always be connected while outside of the cabin. However, it is important to think beyond the tether. If I were to fall off the boat, my plan would be to get to the back of the boat and climb up the swim ladder. But that is easier said than done if I were to fall off the high side at the bow. There are two issues: The tether itself is not long enough to get to the stern and the tether needs a way to get past the shrouds and stanchions.

I use the following steps to set up my system:

1. Run jack lines down the port & starboard deck.
2. Run a second jack line from the bow to stern along the OUTSIDE of the boat.
3. Carry an extra tether at all times.
4. Carry a knife at all times.
5. Drag a line from the swim ladder.

Now... Assume the worst, and you will have to use all of the above: Clip onto your deck jack line with your primary tether. Walk up to the bow on the high side. While you are up there, a rogue wave hits and you are in the water. Since you fell off on the high side, there is no way that you could reach the rail to pull yourself up. And since you

are on the bow, your lanyard cannot slide on the deck jack line past the stays or the stanchions. Grab your secondary tether and clip it onto your second jack line that is hanging along the outside of the boat. Grab your knife and cut your primary tether. Then slide freely back to the transom. Pull the line connected to your ladder to pull your stern ladder down. Climb up the ladder. Clean the crap out of your pants.

I wear a SOSpenders that has a harness included. I connect my extra tether to the harness, then stow the tail of that secondary tether inside the SOSpenders. I also stow a knife in my SOSpenders (as well as my personal strobe). Now... Fortunately, I have never had to use this system. And... I don't know of anyone else in the Society who has. However, I feel that I am prepared for that worst-case situation.

This is only one system. It is the one that I use. My suggestion is to look at your boat and ensure that you have an overboard and recovery system that is foolproof for you. Develop your system that you will want to work perfectly - and hopefully you will never use it.

Step #9 - Set Aside a Weekend to Complete Your 100-Mile Solo

"Money Can't Buy You Love" I think the Beatles sang that back when I was a Boy Scout. Well today, money can't buy you a finish in the Mac-Solo either.

When you look at the itemized list of requirements to enter the solo, a lot of them are easy ones that you can click off the list: Copy of insurance, Life raft certificate, Cash. However, for a first time applicant, the big ticket item remains: You must submit documentation that supports your qualifications. All entrants must document that they have completed a 100-mile/24-hour solo passage. Remember you must travel both 100 miles and spend 24 hours sailing; doing just one won't get you a ticket to the Solo challenge. So... Let's bite the bullet and go do it! Nike!! Go do it!!

First of all, you've got to set your date. How about Memorial Day weekend? Here's why I would pick that weekend... Take a look at Saturday, Sunday and Monday. Here you've got a 3-day window to select your 24-hour period. The entire objective is in your favor, because you get to select the starting time. Watch the Weather Channel and pick your window of opportunity. Without knowing what's in store, I would plan to leave the dock at 5:00 a.m. If it happens to be in the middle of a wet & soggy nor'easter, then you always have the opportunity to delay it a day (or two).

Make your solo a good practice run. Get all of the required equipment on board. Ensure that your overboard recovery system is in place. Pack some good food on board -- your favorite cheese, a chocolate bar, cold pizza(?) -- hey, it's up to you! Make it fun! And bring a pencil and paper. The GLSS wants to see a copy of your log after you do your qualifying solo.

So... Here's the bottom-line. Go for YOUR sail that gets YOU ready. If it's your qualifier, go do it and HAVE FUN! If you're already qualified, go do it and HAVE FUN!! Arrange your calendar. Get some time off. Go sailing on Memorial Day weekend. Like the Beatles say, "Good Day, Sunshine." Ya-hoo! Can't wait! Go be the walrus!

Be sure to read the requirements for completing your 100 mile / 24 hour sail on the web.

Step #8 - Play Some "What-If" Games

Every once in a while, someone will ask me: "How do I rig my boat for singlehanded sailing?"
For the most part, my answer to this question is: "You're probably rigged okay - the most important thing that you can do is to anticipate the unexpected."

That response often frustrates the person who asks me the opening question! I think they're usually looking for the special gizmo line that is connected to the mainsheet, rudder and spinnaker pole. It's used to launch the chute in perfect unison with a mark rounding. There ain't no such thing!!

The most effective (and safe) way to sail shorthanded is to prepare for the unexpected. Therefore, let's pick a couple of situations. And we may as well assume that it is night-time, blowing from the northeast at about 20 knots - and we're beating to weather. (Sound familiar?) "WHAT IF the clew blows out on the main sail?" The good news is

that you won't need an alarm to tell you that this has happened. The bad news is that you won't have a quick way to stop the noise! Therefore, this would be a good time to quickly convince yourself that noise does not necessarily mean that your personal safety is at risk. Your first task should be to give your autopilot some attention. Since your

sail trim has changed, you'll want to make sure that you are still on a controlled course into the wind. You'll want to be as tight to the wind as possible to keep the flogging mainsail close to the centerline of your cockpit.

Now you can select from among several options. Can you put in a reef? That would enable you to stop the noise & flogging and you would be getting some power out of your main. If you can't reef, can you let the sail down part of the way in order to identify and/or fix the problem. If none of the above works your next alternative might be to drop the main into the cabin where you could consider additional options without the complicating factors of the noise, flogging and darkness.

Let's try a similar situation: "WHAT IF the clew blows out on the headsail?" This situation sure does look familiar to the one above! Therefore, some of the same steps still apply. First and foremost, assess your personal safety. Give your autopilot some attention and bring your boat tight on the wind. At first glance, you may think: "Just like the main! But reefing the headsail will be easy - I'll just roll that sucker in!! I'll get rid of the noise then plan my next steps!"

But don't go there mates! Your roller furling SYSTEM is shot. Don't forget that your sheets and clew are a part of your roller furling system! If you roll your headsail without sheets, you'll be committing yourself to no more options. You'll finally end up with a partially rolled headsail that continues to un-roll with every pitch and yaw. You'll wonder why you rolled the sail so quickly since your next problem is now, "How do I un-roll and drop the sail?" Bottom line: If you loose the clew on your headsail, drop the sail to the deck - THEN consider your options.

The "What-If Games" can be a productive thought process to get ready for the Mackinac Solo. But let's not go overboard (err.. no pun intended!) with this. Too much of the "What-If's": will send you to the loony bin!! If you make the first step of your "What-If" scenario to check-out your personal safety, you'll be surprised how the other steps fall in place - just don't box yourself into a point where you have given yourself no more options. That's a fast ticket to the loony bin!

So. Consider the above... Neither one of the two situations had the quick & easy rigging solution for singlehanded sailing. Nevertheless, I am always pressed to give an answer: "How do I rig my boat for singlehanded sailing?"
I finally found the answer... Make sure your SYNAPSE is fully rigged and in perfect working order. Both ends attached. No rust or corrosion. Ready at a moment's notice. Don't leave shore without it. Synapse. Look that one up in your Funk & Wagnalls.

Step #7 - Get a Burger & Beer with Your Mentor

Hey! It's time to find your GLSS mentor! Put him (or her!) to work! Tell your mentor that you're ready to go, but you just want to go over a few things...

It would be worthwhile to "shoot the bull" regarding your overboard & recovery system. Explain your plan, and ask your mentor what he thinks. You may even want to make a trip to your boat to check out some details.
Review your Equipment Checklist with your mentor. Have you got all those flares?!! What about the charts? How about the life raft - did you get one lined up?

Ask your mentor how he gets sleep during the Mac-Solo. If he tells you that he stays awake for three days, he lies!!! Get the details of the sleep. What works? What doesn't work? How about the food?

Challenge your mentor with some "What If Games"! What would you do if...? You'll find out how well your mentor has thought things out (or not)!!! And finally, ask your mentor, "Hey Bub! What about you? Have you sent in your Mac-Solo application yet?" Hopefully the roles won't reverse where you will have to begin coaching your mentor to get to the starting line.

So now that you've had a good lunch and discussed the essentials of sailing solo, it's time to do one more thing. It's the rule. Slide that check across the table and make sure your mentor picks up the tab for the burger & beer!

Step #6 - Send in Your Race Application

Okay folks! It's time to do it!! Send it your race application! Step #6 means that it's only a few more weeks to the Mac-Solo. And, it's only a few more days to the application deadline. What the heck!! Fill out your application and send it in today.

When we receive your Race Application, it really helps us get to organized for the start. We've got medallions, flags and T-shirts that must be put on order. With each of those three things, we can keep YOUR costs down by ordering the correct amount. If our order is short, we end up paying an extra set-up fee to make up the shortfall. If we order too much, we've got extra $$ out the door without the income to cover it.

So... Here's how you can help! Please send a quick reply to the race chairman and let him know of your Mac-Solo plans. Any response is acceptable! Give him a "yes," "no," or "maybe," and we'll still have something to work with. And here's and important one: If you send your application in after the due date, it will cost you some extra bucks for a late fee. The extra bucks is a lot of money, and we don't want it! Send in the application and you get to keep the extra bucks and reduce the stress on the Race Chairman!!

Step # 5 - Go through Your Safety Checklist -- Get it on Board

In many respects, this item in the countdown to the Mac-Solo may appear to be mindless. It is that task of packing stuff on your boat that you hope you never use! Life raft - ya gotta have it, but I hope you never use it. Same with flares. The same with many items on the GLSS Safety Checklist. Refer to the GLSS Standard Required Equipment List at: http://www.solosailors.org/pdfs/Std_GLSSRequiredEquip.pdf.

It may appear that some items appear to be so trivial that you'll convince yourself that you can do it the night before the start. Don't put it off to the last minute! You don't want to be looking for a 'Signal Mirror' at 9:00 PM on the day before the race! Look for your mirror now, and put it on board. Get your flares organized now. Go buy them. Or you can beg, borrow (or steal!) the extra flares from a Doublehanded buddy or from a big-Mac racer. Hacksaw, spare VHF antenna or hand-held VHF, personal strobe, radar reflector, first-aid kit and a bucket with a 6-foot lanyard - get 'em on board now.

There are some things that you will want to do the night before the Mac-Solo. You probably won't want to rig your jack-lines & tether right now. But put that stuff in a box to ensure yourself that you won't be looking for it at the last minute. Reserve a spot on your boat for your safety stuff. Keep your last-minute to-do list to a minimum.

Well it isn't exactly safety but heat, light wind and bugs are a terrible mix. Consider equipping your hatches with screens to keep the bugs out. Buy a couple of good fly swatters. When you are becalmed and going nowhere it is great sport to swat the flies and other bugs. You may not kill very many but it sure makes you feel better!

Step # 4 - Go For a Solo Sail

Wow! Here's where the rubber hits the road (or the sheets hit the wind!)!!! Only four weeks to go, and it's time to practice. For those who are first-time entrants, schedule a block of time during this upcoming holiday weekend to get your qualifying solo under your belt. And if you are a seasoned veteran, for Pete's sake, go sailing this weekend!

Here are a couple of things you can check out when you're sailing. Do you have all the "stuff" on the boat? How about that snatch-block that had to be re-built last winter - is that back on board? How does the rig look? Is there too much slack on the leeward shrouds? Did the spinnaker get packed the last time you used it - or is it just stuffed in the turtle? If I ask you any more questions, we'll both become charter members of the OCD Club!!

Hey. Bottom line: Go sailing this coming holiday weekend!!

Step # 3 - Plan Your Food Menu

This step is an important one for the successful completion of a Mac-Solo. If your plan is to nourish yourself with a bag of potato chips and a box of raisins it is entirely possible that you can finish the Mac-Solo. On the other hand, if your plan is to cook and prepare an elaborate 7-course meal, it is also entirely possible that you can finish the Mac-Solo. The optimum plan rests somewhere between the above two extremes. At our GLSS Spring Safety Seminar, Michael Garcia highlighted the importance of nourishment and hydration. Simply stated, make sure you eat and drink - or to say it another way, keep that internal factory running! The Mac-Solo is not a good time to begin your diet! It's not a good time to try new foods. Look at your current eating habits, and plan your menu to align with that.

If you typically start your day with two cups of coffee, plan to do the same on the water. Follow your routine - no more and no less. Caffeine withdrawal will give you a headache! Too much caffeine will send you into space. Stick with your routine! Do you usually have a bran muffin to jump-start your "morning constitution"? If so, then stick to your schedule. Do what you normally do to keep your system from surprises!

Make sure you hydrate! Drink plenty of water. With the increasing popularity of fleece, you may not notice yourself sweating because of the fleece's wicking characteristics. A good rule of thumb is to "keep your plumbing running" through the day. This sounds gross, but... Watch your urine color, and ensure that it is pale-yellow-to-clear. If it is dark yellow, then hydrate, hydrate, hydrate! Consider water and a sports drink such as Gatorade. Do you stop drinking water a night because it makes you cold? Consider this: Boil a kettle full of water on your stove, and then put the water into a thermos. Now the hot water is readily available to make some instant soup; or simply drink the hot water to keep you warm. If it's readily available, then you'll use it. Stay away from instant coffee to keep you warm. It has the tendency to dehydrate, and the caffeine overdose will begin to work against you.

Set aside an array of healthy foods that are easy to eat AND foods that you especially like. I like to pre-cook about 20 chicken legs and put them in a Tupperware container. This is my major source of protein. I snack on the chicken legs just like they're cookies! I like a hot meal around sunset. I have a tuna noodle casserole-type dinner that I can prepare in a single pot on the stove. It gives me a hefty dose of carbohydrates and gets me warm & full just prior to the night shift. I look forward to a hardboiled egg, an orange & coffee at sunrise. Granola bars are my source of sugar - they settle my sweet tooth a couple times during the day. A zip-loc bag with cauliflower & broccoli and a touch of ranch dip really hits the spot in mid-afternoon.

If you make it a complicated process to nourish yourself, then it will be easy to postpone your nourishment. However, if you select YOUR fun foods (that are healthy) you'll be able to get into an easy routine. You will find that there are no extra prizes to be given at the awards luncheon for those who brag about surviving on a bag of chips & box of raisins! And in the same fashion, there are no penalties if you gain a few pounds during the Solo!

Step # 2 - Pack YOUR Stuff for the Mac Solo

The more recent steps have been a lot of work. There is a lot to do to get the boat ready. But let's face it; we're on the home stretch for the starting line. Even though you might be swamped with last-minute details, be sure to take the time out for YOUR stuff!

You've probably already worked your way through your maintenance list. Your grocery list is getting the finishing touches. We'll ask you to initial each line on the GLSS Safety Equipment Checklist at registration. These details are so important, that you may neglect YOUR list! Here are some suggestions. And a lot of these items are things that I forgot in prior years!

Possibly unique for this year - bring your Passport or some proof of citizenship. The Coast Guard has stated that it's "business as usual" for recreational boating, but it would be prudent to be prepared. Bring some cash! The last time I looked, Mac-I didn't get any less expensive! Credit cards are readily accepted and there is an ATM on the Island. But I can assure you, the cash disappears quickly!

Bring a camera. Bring some comfortable walking shoes suitable for dodging road apples! Bring a towel - that first shower is like a re-birth until you realize that you forgot a towel! Bring a yardstick or tape measure. We will be

asking for confirmation of the 20-foot waves that you encountered! Bring your brag-flags. Plan to "dress ship" on Wednesday at noon for the awards luncheon.

This is the fun part of the Mac Solo! Bring fun stuff!

Step # 1 -- Go to the Starting Line!

There's now only one more thing to do, well maybe three! Do it! Go to the mandatory skippers' meeting. (You can't race if you don't attend the skipper's meeting!) Get a good night's sleep and last and most important: **go to the starting line!**
I'll see you on the Island!

Respectfully,
Patrick Nugent

TEN REASONS TO DO THE MAC SOLO

By GLSS member, Mark Garcia

10.	You can jettison your "Honey Do List" just before the starting signal.
9.	You will win all tactical decisions because it's only you vs. your alter ego.
8.	You will luxuriate in spaciousness without 8 gorilla crew members on board.
7.	You can't imagine the fun of trying to lower sail in a storm at night off a lee shore only to find your autopilot quit and the halyard is fouled.
6.	The hallucinations from lack of sleep are better than those of LSD.
5.	The medallion awarded for successful completion will so impress your friends and family that you will be regarded as an old SALT (Sailor Always Looking for Trouble).
4.	You will save on Viagra because it is likely you will be UP for the duration.
3.	You can pass gas all day and night without being offensive.
2.	You will save precious energy not having to scream and shout if you are swept overboard. And the #1 reason to do the Mac Solo is...
1.	At Mackinac you will be hugged by the beautiful GLSS race committee ladies, a welcome of such delight that you will quickly forget the agony of getting there.