# J. In The Wind

J/105 Class Association



J/105 Midwinter Championship Lakewood Yacht Club, Houston, TX March 9-11, 2012 www.j105mw.com



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#### President's Corner

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The J/105 Annual Meeting was held at the Annapolis Yacht Club on October 28, 2011. The attendees were Bernie Girod (President), Vic Forsyth (Vice President), Joe Colling (Secretary/Treasurer), Walt Nuschke (Chief Measurer), Bee Bednar (Past President), Bill Zartler (at-large), Chris Groobey (Fleet #3), Robert Baker (Fleet #4), Paul Beaudin (Fleet #6), Chuck Driscoll (Fleet #8), Ian Farquharson (incoming Vice President), Carter Williams (incoming at-large), Christopher and Julie Howell (Class Administrators). A number of major Class activities were announced at the meeting:

- 1. We will continue to explore ways to facilitate J/105 chartering. Guidelines for contracts and terms have been defined, and the Class will continue to look for an insurance carrier that will write a reasonably priced policy for chartering. As everyone is aware, travel cost to major regattas has become an issue, so chartering is one avenue to increase participation at our major events.
- 2. Kattack has been used effetely for real time boat positioning during our regattas in 2011. The Class has entered into an agreement with Kattack to give all fleets access to this service for any for their local events at no cost. The only out-of-pocket expense for the fleets will be the iPhone application that is required on each boat. This application can be found in the Apple app store for a \$10 charge. We are hoping an Android application will be ready by spring 2012, and we will keep you posted on the progress. If you do not have one of these types of smart phones, Kattack can supply tracking devices for your boat. Please contact them at www.kattack.com for pricing.
- 3. Chuck Driscoll confirmed that the 2012 North American Championship will be held in San Diego Yacht Club on October 17-21. The NOR is being drafted, and they are expecting at least 30 boats to be present for this event.
- 4. Annapolis Yacht Club was approved to host the 2013 North American Championship. More information will become available throughout 2012 on this event.
- 5. Hull #684 is the newest boat, and the fourth in as many months. This boat is going to the new fleet in Chile, which is now up to 15 boats.

We feel that 2012 will be a very good year for the J/105 Class. The new Class rules continue to provide fair one-design racing while continuing to simplify the wordage. Our upcoming national events will be first class—both on and off the water. If you have any questions on the Class direction, please do not hesitate to talk to your local fleet captain or any of your national Class officers.

Fair Sailing in 2012, Vic Forsyth, J/105 Class President



J/105 Fleet 17 and the J/105 Class Association are excited to announce that the 2012 J/105 Midwinter Championship in Houston, TX! Yes, you read that correctly. Join local boats in Galveston Bay for a three-day weekend of one-design racing to determine the 2012 J/105 Midwinter champion!

Tentative schedule:

Thursday 3/8 afternoon: Launching and measurement

Friday 3/9: Racing Saturday 3/10: Racing

Sunday 3/11: Racing, with Awards to follow

Lakewood Yacht Club sits on 38 beautifully landscaped acres with four sheds and seven docks. There are nearly 100 covered slips for power boats ranging in size from 44' to 100'. There are also over 200 open slips on fixed and floating piers ranging in size from 40' to 100'. The spacious clubhouse offers its members a beautiful view of Clear Lake and Galveston Bay.

The Bermuda-style clubhouse provides Lakewood's 500 plus members with quiet harbor-view dining facilities and excellent cuisine while the bar and piano

lounge with three large plasma televisions invite members to relax by the fire or gather around the bar. The beautiful ballroom overlooking the inner harbor is the venue for many of Lakewood's social events as well as weddings, meetings and the popular Sunday Brunch. A Game Room provides supervised activities for members' children.

Lakewood Yacht Club has been recognized in the Robb Report as one of the 10 most prestigious yacht clubs in the United States. The members are very proud of their Club and of the hard work the staff, Commodores, Board of Directors and fellow members have devoted to the Club during the past 50 years.

Some of the racing events LYC has hosted recently include:

- \* 2009 J/80 North American Championships
- \* 2010 & 2011 J/Fest Southwest
- \* 2011 Day Sailor North American Championships

For additional things to do in the area, check out the Bay Area Houston Convention & Visitors Bureau website at www.visitbayareahouston.com.



2012 J/105 North American Championship San Diego Yacht Club, California October 17- 21

By Jeff Brown, Regatta Chairman

It is with great pleasure that I invite you to the 2012 J/105 North American Championship, hosted at San Diego Yacht Club from October 17- 21, 2012. We expect this to be one of the best attended events and would like to see representation from all fleets to make this an incredible turnout and a great North Americans for all. San Diego is a special city known the world over for its great weather and extraordinarily friendly and hospitable locals, who will no doubt make you feel right at home. San Diego Yacht Club is home to some of the best sailing and the best sailors the

USA has to offer. It is no stranger to hosting world class events, having recently hosted the 2011 Etchells Worlds, the Thistle Worlds and multiple Star Worlds Championships...not to mention three America's Cups. Our goal for the J/105 North Americans is to put on a magnificent regatta with great race management and wonderful onshore entertainment that will surely be a magnificent memory for all sailors participating.

October is an especially incredible time to visit San Diego, whether you're visiting our world famous Zoo or Sea World, the amazing USS Midway Museum or enjoying the fun of the Gaslamp Quarter which is known for topnotch restaurants and nightlife. You will be visiting at the perfect time of year—after all of our summer visitors have gone home—making the hotel rates a bit friendlier and the restaurants a little less crowded. Sailing in San Diego in October

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promises consistent weather with our normal 8-11 knots, sailing just off Coronado with some of the best race management available in the world, who will be making sure you will get some full days of racing in sunny San Diego. Local knowledge is not one of the most important factors here in San Diego as we plan on having some of our best sailors from Fleet 8 providing local tips, along with our experts at North, Ullman and UK onhand, giving free clinics and help prior to the event.







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## The Kattack iPhone App

#### Kattack

Most of you already know what Kattack is (http://www.kattack.com), but just in case you don't, it's a service that enables recording of GPS locations in real time. When viewed in sequence, the mapped locations become a video showing exactly where the tracking device is, its speed and its name at any given time. In contrast with SPOT units that post locations every 10 minutes, Kattack devices post every 5 seconds so the race details can be seen. When multiple J105s racing at the same time are tracked, the live Tracker display appears as a movie of all the boats in the entire race from start to finish.

The entire Kattack live tracking system functions using a cell phone with a custom app referred to as a Tracker, and a Web Player. A program referred to as a Publisher is used to create a finished version. including race statistics that can be replayed as much as you want. During the race, the Tracker records the locations and sends them to the Live Tracker (Kattack refers to this as a Feed), which displays them on a computer or smart phone screen in close to real time. One can view the race while racing, but the delay is large enough to essentially rule out any tactical advantage one might envision. This is the perfect tool for playing the race as it happens in the yacht club or for the people at home.

The Publisher formats the race for replay and adds interesting statistical data. This means that races can be replayed and rehashed to your heart's desire. Races can thus be tracked, displayed on a big screen TV and replayed as many times as desired. The displays can be used as teaching tools, for bragging rights, or in just about any way a local fleet might dream up.

There are currently two kinds of Trackers, both of which happen to be cell phones. One can be obtained from Kattack for a rental fee of approximately \$125/year including data service. The other is a \$9.99 iPhone or iPad app that utilizes the integral GPS to send tracking data to the J/105 Feed on the Kattack server. Utilization of the app minimally requires a standard data plan to enable communication between the app and the Kattack system. It is feasible to use a "pay as you go" data plan, as the amount of data is relatively low. The Publisher is owned by Kattack, and the J/105 Class has purchased an unlimited annual license from Kattack. It's worth noting that Kattack is working on an app for Android that should be available in 2012.

Kattack has been in use full time during the 2011 season by two of our fleets—4 (Toronto) and 6 (Long Island Sound)—with excellent results. The Class license was used to run Kattack for Key West and the NAs, which allowed everyone to see the action as it unfolded. This proved to be a big attraction for those of us who couldn't manage to be there.

#### The J/105 National Class License

Beginning in the Spring of 2011, the J/105 national Class Officers began discussing the merits of purchasing a Class-licensed Publisher. The idea was to make Kattack available to all local fleets in the hopes of encouraging local participation and to increase interest in the boat. Then-Class President, Bernie Girod, bought the original national Class license for national events.

In the process of understanding the details of the system, Walt made one thing clear from the start to make this an effective effort we would have to figure out how to handle the Tracker issue. Since he knew that the Kattack Trackers were really just cell phones, it was clear to him that modern smart phone app could easily make the device into a Tracker. Initially the focus was on the iPhone, and a couple of a failed attempts (one by yours truly) made the ride getting the iPhone app very bumpy, but we won't dwell on that. Suffice it to say that we now have one and will have an Android version very soon.

At the Class Annual Meeting in Annapolis in October, the Class approved the purchase of a Class license that beginning in 2012 will be available to every fleet to track their races and regattas throughout the year. You will not have to use an iPhone or an Android to participate, but the focus here is just on the iPhone.

#### **Getting the App**

Getting the app is simple. Mac users can go to the app store from iTunes and do a Kattack search by typing Kattack in the search window at the top right corner. Hitting return brings up the page for purchasing the Kattack Mobile app. Downloading the app to your computer and syncing with your phone installs the app and makes the phone into a tracker. The app can also be downloaded directly to your iPhone by going to the iPhone store, http://itunes.apple.com/app/kattack-mobile/id451564266?mt=8, clicking on search, entering Kattack and then purchasing and downloading the app. The app should install automatically.

#### Setting up the App

Once you have the app, you need to set it up so that your boat and the regatta can be identified by the Publisher. Activation of the app begins with the Kattack logo as shown in Figure 1. This is quickly followed by a map (Figure 2) that should immediately show your current location. At this point you know the app is receiving the GPS information, but before you can use the app as a tracker you will need to set it up with your boat name, the race feed and a password for that feed. The Feed name tells Kattack where to store your data so all the information from one race is in the same place. You will have to get the password from the proper person, but everything else should be available directly from iPhone screens.

Begin by clicking on the Settings icon in the lower right hand corner of the Kattack Mobile's display. You should then see the page shown in Figure 3. Entering your boat name, race feed and password is accomplished by selecting each of the three named fields in sequence.

First, select Boat Name by clicking in the corresponding field below the title. Enter your boat's name, as shown in Figure 4, and then click the field



Figure 1: Logo Page



Figure 3: Setup Page



Figure 5: Race List



Figure 2: Map Page



Figure 4: Map Page



Figure 6: Setup Finished



Figure 7: Logo Status



Figure 8: Settings



Figure 9: Walt Nuschke's little yellow Otter Box Kit

below the Race Feed title.

The image in Figure 5 should appear on the screen. You may have to click on the upper right hand All Races Button to get the list, but the list usually appears automatically. Select the race feed you wish to enter and then scroll up and click in the Password field.

Enter the password you have been given for this race. At this point, you are at Figure 6. If all the information has been entered correctly, clicking Start Tracking enables your iPhone's tracking capability.

To make sure all is OK, click on the middle button at the bottom of the display. The status display as shown in Figure 7 tells you if the app is working properly. If so, you can verify that you are now in tracking mode, and all is well.

At any given time you can change the race feed, boat name and password by repeating the process described above. To do this, click on the right most button. The screen shown in Figure 8 will appear. From this page, you can edit the name of the boat or add additional boat names, race feeds, passwords or simply stop tracking.

#### The iPhone Tracker

As a Tracker, the iPhone app is not without issues battery discharge, potential water damage, GPS signal and phone dropouts are concerns. In some settings, the internal battery of the device will probably handle all the races for a day, but it's wise to have it on charge. One of the best solutions to resolving these problems is Walt's iPhone Otter Box Kit as shown in Figure 9. This little yellow box is completely sealed against water and has all the necessary battery and USB connections to keep the phone charged. The internal foam lining keeps the phone dry and protected. The enclosure has 2 delrin rail clips that don't show in the kit photo but enable easy mounting on the rail. The power adaptor mounts by either foam tape (included) or optional screw mount. An integral switch turns it on and off to eliminate battery drain when not in use. An LED light indicates when it is on, and a 10 ft. cable makes for easy connection to the boat's battery. There is a waterproof connector to allow easy connect and disconnect. The unit is potted to minimize corrosion thereby eliminating a big problem with cigarette

lighter devices. The best place to mount the adaptor on a J/105 is on the bulkhead directly under the aft hatch. This allows for a drip loop in the cable from the rail box and further reduces water related issues. As indicated in Figure 10, the best location for mounting the Otter box is on the push pit rail. This keeps the phone looking at the sky and maximizes the cellular signal.

There are, of course, a great variety of ad-hoc approaches to mounting the iPhone Tracker. One owner used a modified Tupperware container taped to the pushpit rail. Another used a Ziploc freezer bag (my favorite waterproof container) and kept the phone in his pocket. The iPhone-Ziploc setup or any other configuration can also be taped to the binnacle, but there may be some risk of getting it damaged by a main sheet. If there is a cigarette adaptor on board, you can leave the iPhone down below in a more or less insecure place. Generally speaking these approaches are certainly inexpensive, but considering the current price of the iPhone, Walt's design appears to offer a practical, economical and secure solution to keeping the phone safe and the tracking process working at an optimal level.

Bee has AT&T service in Houston and has tested the app offshore and in a couple of local beer can races. The main problems have been with cellular signal loss that interferes with live tracking, but all the data is buffered in the phone and eventually it gets transmitted. This means that the playback has no data loss although it is common to see dropouts in the live track depending on the quality of local cell phone service. The Kattack trackers use a completely different service (Boost Mobile) so the results will vary versus an iPhone operating with either the AT&T or Verizon systems. Boost Mobile coverage maps are not nearly as inclusive as with the big carriers, but for the common venues the coverage has been excellent. If you watched live tracking at Key West this year (using Kattack trackers), you would have noticed quite a few dropouts. These dropouts disappear in the replay because the data eventually catches up when service returns. It is also important to note that cell signals are very directional and therefore subject to shadows cast by objects that don't allow the signal to pass through. This is the primary reason why mounting the tracker on the rail is preferred. In the future, Bee plans to use his iPad2 S as a chart plotter so it will become the de facto tracker.

For pricing and ordering information on the Accessories, visit http://www.lsi-controls.com/products/smartphonekits.htm.



Figure 10: Rail mounted Otter Box

#### **Lessons Learned from Kattack**

By Robert Baker, Fleet 4 Captain, Skipper *Planet B* 

In the 2010 Fleet4 business meeting, I proposed to the 21 fleet members that we purchase the Kattack system for our 2011 season. I had become familiar with the race replay features of Kattack after it was used in the J/105 North Americans and some other events which caught my attention. What better way to learn from your mistakes, and help mid-fleet boats move up the score sheet, than to be able to review your races? As an added bonus, I discovered that the software could also produce a series of reports on each race which would detail the sailing data per leg for each boat, VMG, distance sailed, min/max speed and so on.

As a background, our fleet is centered in Toronto on Lake Ontario—Canada's largest city, serving as the headquarters for many of Canada's major firms. Over the years, we've found a number of companies who like to offer their key customers a fun day on the water and ask us each year to organize a sailing-race day. We provide our boats with a driver and teach their guests how to sail and crew in a number of white sail races. They say it's a great alternative to the corporate "golf day." Great fun for their top customers...and it provides revenue for our fleet. Deciding to subscribe to the Kattack service was a fairly easy decision as our fleet enjoys the resources to manage it.

As a group, we decided that each boat would buy their own Kattack Live Tracker and manage its data plan. The other option was to rent the device for one year, which costs a little less and included the data plan. However, we all felt that if the system did what we expected, we would all want to do it again the next year, so buying made more sense. The fleet would be responsible for some extra units (and their data plan) to serve as mark and boat signals, and would pay for the Kattack subscription fee. I agreed to manage the project throughout the year. I placed our order in early 2011 and took delivery in April, just prior to the sailing season start.

As the organizer and promoter of the service, I communicated directly with Tom Verburgt, President of Kattack, who responded promptly to any and all questions I submitted...even the dumb ones (and there were a lot of those). Having gone through the process, I can see where I made a few mistakes. My biggest blunder was not insisting that everyone add funds to

their boost account BEFORE their phone accounts expired. Although I handed them out in a spring meeting, most skippers tucked them away in a drawer and didn't look at them again until our first event in mid-May. By that time, most of the units had no funds in their data account and had the accounts deleted. This meant we had to start from scratch, getting new phone numbers and accounts. Some head scratching later, let's just say we got everyone "tracking" just in time for our first major regatta. The rule is—don't let your boost account run out of funds!

My main goal for the season was to use the information captured by the Kattack system to help teams improve their position by recognizing their mistakes evident upon review. This was helped by a meeting I organized after three regattas. I prepared a PowerPoint presentation, and we all got together at a local pub in a reserved room. We had two projectors running—one showing the PowerPoint slides and the other available to review the Kattack race being discussed

It became evident from review that the winners of the races did the basics right. They got to the line on time, sailed with a reasonable VMG and maintained clean air. Once ahead, they covered loosely and extended while the boats behind struggled with each other. In other words, Kattack shows you probably what you already know...but you might not quite believe. I polled the fleet and found that most boats think that their point or speed suffers compared with the competition. But a review of the Kattack data didn't support this in most cases. This was an interesting finding. Good starts and tactics won out time after time—and Kattack proves it. Everyone thought the presentation was helpful, they enjoyed the night and came away with ideas to work on for improving their race results.

For 2012, we will continue using the system and will work on helping everyone improve. I see that 3 or 4 boats who were struggling have really managed to pull up their socks and had better results in many races near the end of the season. Some of this improvement must be attributed to the lessons learned from the Kattack software

## Technical Committee Report Walt Nuschke - Class Measurer, Fleet 3, Annapolis

Valt Nuschke – Class Measurer, Fleet 3, Annapolis
Pat Benedict – Fleet 1, San Francisco
Robert Baker – Fleet 4, Toronto

#### Maintenance Notes

The Technical Committee fields a lot of questions regarding maintenance, and although we are not maintenance gurus, we do make an attempt to find answers and post our findings on the Forum. The J/105 is now hitting 20 years since hull #1 so it is important to pay attention to this important subject as we move into the third decade. The original build quality has proved to be excellent, but things do wear out so here are some of the things that we hear about.

#### The Fuel Tank

Several owners have found pin holes in their fuel tanks. According to their contractors, this is caused by electrolysis erosion of the aluminum tank where salt water has been trapped under the tank. The pin holes show up where the pads under the tank have held the water for extended periods. This is made possible due to a lack of drain holes from the compartment under the cabin seat. Water somehow makes it into that area and can't get out. The best preventive action is to drill some drain holes that allow water to escape to the sump and to regularly check the tank to make sure water isn't trapped there. It could be helpful to replace the absorbent padding with something that does not absorb water.

#### Moisture in the Balsa Core

All balsa core boats have the potential problem of water penetration through the outer skin into the balsa. Once there, the balsa acts like a sponge and the water spreads. After the water is in the balsa, it leads to delamination and loss of strength. Freezing cycles will make the problem worse as the core expands and contracts

Scrimp built boats (starting with #158) were built with holes punched through the balsa to improve the bonding between skins, and this also serves to limit the expansion paths when water gets in. Pre-Scrimp boats were built using standard lay up techniques, and are therefore more susceptible to water migration.

The boat and the attached parts are constantly moving so the sealing materials tend to develop fissures over time. Every owner therefore needs to be extra diligent about preventing water intrusion. All dings, damaged fittings, loose screws, etc., should be immediately sealed to keep the water out regardless of what it looks like. Finished repairs can be made later, but an immediate patch is essential to keeping water out. Special attention should be paid to the fittings that pass through the balsa core, such as the hand rails, dodger fittings, etc.

It is important to inspect for any sign of leaking, especially in through hull fittings. When a fitting is replaced, the best policy is to drill the hole oversize, then fill that with epoxy, and then drill the correct hole to mount the fitting through the epoxy. This will prevent water that makes its way into the screw hole from traveling into the core. I have heard the suggestion of using a tool, like an L shaped hex wrench, to widen the hole between the glass skins before filling with epoxy. I haven't done this, but plan to give it a try as this would improve the seal.

The chain plates are a point of extra concern because no part of the boat is subject to more stress. Water that enters at the chain plates will infiltrate the main bulkhead, which is made of plywood. When this happens, the plywood loses strength and the shrouds can pull loose under heavy stress. Do not neglect any sign of a leak in the area where the shrouds are bolted to the main bulkhead

#### Trailer and Lift Stress

Boats that are transported on a trailer need to pay special attention to how this is done, as there have been some instances of severe damage from improper handling.

The boat is marked with hoist points that line up with the internal bulkheads. It is very important to support the boat, either when lifting with straps, or supporting with padded supports, on these locations. To do otherwise will result in what is commonly called "oil caning" of the hull. The hull is designed to support the boat floating in water and is not designed to support all that weight on concentrated points. One would assume that the various contractors are fully aware of this, but that is a false impression.

I have seen instances where a crane is used to lift with two straps that converge to a single lift point. This puts a lot of compression force on the boat, as though it is trying to bend in half, and boats have been damaged by this. In my opinion, anyone who is traveling a boat should carry a single point lift as this is a far better option than the rig described. When it comes time to lift the boat, you are at the mercy of that contractor and it makes sense to have a viable option ready just-in-case.

When setting up a trailer, it is extremely important to get the supports lined up with the bulkhead lift points. The height of the supports should then be carefully adjusted so the weight is primarily supported by the keel, with the hull supports providing lateral support to keep the keel vertical. The boat should then be strapped to the trailer to prevent movement during transport. These simple concepts seem obvious, but there have been some unfortunate (and expensive) examples to the contrary. The result of improper rigging to the trailer can be either major hull damage or a cracked keel sump.

#### Electrolysis Damage

Damage from electrolysis is one of those things we all know about but seldom understand why. Low levels of electrolysis are unavoidable due to the natural interaction of different conductive materials. This is particularly true regarding our lead keels and salt water. Electrolysis can become very destructive when an active source, such as shore power, is introduced.

In recent times, inexpensive battery chargers have become available that are sold through marine supply dealers. These chargers are not isolated (i.e., they have no transformer), and therefore put the boat in direct contact with the power lines. This situation will result in extreme electrolysis as current is now flowing between the boat and whatever potentials exist in that vicinity. We should completely avoid any connection

that places the conductive parts of a boat in direct contact with shore power.

#### Standing Rigging

There is a general rule of thumb that the rigging should be replaced every ten years. Since most J/105s have seen their 10th anniversary, this deserves attention. The consequence of failed rigging is usually a broken mast. The critical pieces are the shrouds, as these provide the support for the mast. The headstay and backstay only provide supplemental stability during high wind conditions.

The minimum maintenance should be an annual inspection that focuses on all the places where the shrouds touch something else. The points of rig failure are most often at the ends due to fatigue stress in combination with electrolysis weakening. The point of failure will not necessarily be the shroud, but instead the fitting where it is attached. A failed spreader, or turnbuckle, or loose chain plate, or broken mast fitting, is just as destructive as a broken shroud. Make an inspection trip up the mast (to look carefully at every part) a regular part of the annual maintenance schedule.

Some other points to focus on during the trip aloft are the top of the jib furler extrusion and the sheave boxes. The furler extrusion is a sharp edge and should be covered so it doesn't rip into sails. A thorough wrap with rigging tape of this end plus any other exposed pins is a good thing.

The sheave boxes are stainless parts fastened to an aluminum mast and are therefore subject to weakening by electrolysis. Mounting holes are cut into the mast that, for the main halyard sheave, are right at a point of maximum stress when the backstay is pulled on hard. Carefully inspect this area for cracks that originate at the screw holes or the sheave box itself. There have been instances where masts have broken at this point. The best fix for this is to have an aluminum sheave box welded in place. This will turn a weak spot into a strong one.

#### The Engine

The Yanmar 2GM20F diesel that is in most boats is very reliable as long as the oil and filters are changed on a regular basis. Most problems have been with the cockpit controls and the raw water cooling flow.

The cockpit controls that give the most issue are the shift cables, the neutral switch and the fuel shut off cable. It is possible to circumvent these problems with some simple maintenance procedures. Lubricate the neutral switch with a healthy dose of WD-40 twice a year. WD-40 was originally designed to keep moisture out of electrical connections and is perfect for this job. Lubricate the cables at the same time with a migrating penetrating oil. Be sure to hit both ends, although the oil will migrate best downhill. I use a product called Kroil, but there are others that act the same and can be found in auto supply stores. Operate the cables after oiling to help with distribution. This oil will cut any rust that has started and provide a barrier against water.

Some of the fuel shut off cables were installed in the binnacle. This is not a good place, as it is exposed to the elements and has a tortured path to the engine. If replacing this cable (104271-67550), move the installation to the recess next to the shift handle. Make sure that there is adequate room behind before drilling the hole. This will provide a more direct run to the engine and minimize exposure to the elements.

The raw water cooling system relies on a pump that is located on the lower left front of the engine. It is easy to recognize because the raw water inlet hose is connected there. Water flows from the hull fitting inlet, through the strainer, through the pump, into the heat exchanger, then out of the exchanger into the exhaust flow at the big elbow on the aft end of the engine. The water is pumped by a rubber impeller (in the pump) that should be replaced at least every other year. Two parts are needed—the impeller (124223-420920) and the gasket (124223-42110). When you buy the parts, get two sets so you have a spare on board. When you install the spare, buy another set. The change is very simple and is an easy DIY job. Since impellers have a habit of failing when it is least convenient (like in the middle of a delivery), the ability to do your own repair is important.

The other place where cooling has been a problem is the place where the water mixes with the exhaust. Minerals from the cooling water build-up over time and restrict the flow. Eventually the flow is stopped. If water flow is reduced or stopped, and the impeller is known to be good, then this is probably the cause. You can quick check the impeller by removing the hose from the heat exchanger and let it pump into a bucket. The easiest fix for a blockage is to remove the hose and fitting between the exchanger and the elbow, and use a drill or small grinding bit to remove the minerals. You can access this through the port side engine opening.

#### **Electrical Connections**

Electrical connections on a boat, particularly in a salt environment, are difficult. The metals all react strongly with the various salts, and the result is corrosion. CRC makes a series of products that are readily available at auto parts stores that are a big help. Contact cleaner is very good with remedial work on any connector. This will remove contaminants and establish a connection. Dielectric grease is the solution for protecting the connector from contamination. This is particularly important on outside connections such as the wind instrument pod at the top of the mast or in cockpit display connections. The grease is a dielectric so it won't mess up the electrical signals, and it displaces the air inside the connector to keep oxygen, water, salts and whatever else away from the connecting parts.







## YOU DON'T HAVE TO BE ON THE BOAT TO BE ON THE TEAM.

The Women's International Match
Racing Association (WIMRA) promotes,
coordinates and supervises women's
international match-race sailing.
Become an official member of the
organization that helped to get
Women's Match Racing into the

2012 Olympic Games and enjoy all the benefits and privileges exclusive to our members. Join at **wimra.org**.





# **TOZ**Will Harris Waterline Systems

This older J/105 came into the shop with several LARGE areas of delamination and damaged core.

There were several areas, all about this size. This is going to cost some real money to fix.

Note: The delam itself would not have been quite this big. But these repairs are a bit like cancer surgery, it doesn't help the patient at all to get most of it!

When you get this big, going a bit bigger doesn't really add any cost at all. So what caused all this misery?

Turn the page.



What's that? Oh it is a #10 self tapping screw. It's not very big, but it sure made a mess.

I didn't even need to go aboard to figure out what happened. Someone decided that they needed an eyestrap to tie an anchor or something down securely. Maybe it was a bilge pump hose. Whatever it was, they just shot a self-tapper into the bottom. I don't care what wonder caulk you find, if you put a hole in the inner skin, in the bilge..water IS going to find its way in.

I don't know for sure, but I suspect this was a multiyear process. A little water found its way in during the summer, then froze during the winter. This made it possible for more water to get in the next summer.

It's obvious that PREVENTING this problem is easier and WAY cheaper than fixing it! There will be times when you need an eyestrap in your bilge, or you need to tidy up hose runs. Get some scrap wood. Mahogany is probably best. Teak is too oily. Make some little pads, thick enough to accept your screw. Contour the bottom of your pad to roughly match the shape of the hull where it is going to be mounted. Then epoxy the pad into place. I haven't used this yet, but I suspect this is an awesome application for the new West Six10 Adhesive.

I know a few of you are reading this with that oh s@&! Face. You might get lucky. Go to the Waterline Systems website and download the how-to, 'Fixing Screw Holes'.



At the October J/105 Annual Meeting, new officers were elected, including: President Vic Forsyth, Vice President Ian Farquharson, Secretary/Treasurer Joe Colling, Chief Measurer Walt Nuschke, At-Large #1 Carter Williams, At-Large #2 Bee Bednar and Technical Committee Member Robert Baker. Also appointed by the Copyright Holder: Technical Committee Member Pat Benedict and Fleet At-Large James MacDonald. For their contact information, see page 3 of this newsletter.

## J/105 Annual Meeting



The J/105 Annual Meeting took place at the Annapolis Yacht Club. New President Vic Forsyth was elected, as the torch was passed from Bernie Girod. Thank you, Bernie, for your guidance, time and wisdom!

#### Calendar

Dates	Event	Contact
January 16-20, 2012	Key West Race Week Key West, FL	Peter Craig 781-639-9545
February 17-19, 2012	St. Pete NOOD St. Petersburg Yacht Club St. Petersburg, FL	Valerie Mey 401-845-4412
March 16-18, 2012	San Diego NOOD San Diego Yacht Club San Diego, CA	Valerie Mey 401-845-4412
April 19-22, 2012	Charleston Race Week Charleston Harbor Resort & Marina Mt. Pleasant, SC	Daniel Havens 843-722-1030, x18
April 22-27, 2012	Bermuda International Invitational Race Week Royal Bermuda Yacht Club Hamilton, Bermuda	Audrey Pope 441-295-2214
April 29-30 and May 6-7, 2012	American Spring Series American Yacht Club Rye, NY	Paul Beaudin 917-584-5194
May 5-6, 2012	Annapolis NOOD Annapolis Yacht Club Annapolis, MD	Valerie Mey 401-845-4412
May 18-20, 2012	Seattle NOOD Seattle Yacht Club Seattle, WA	Valerie Mey 401-845-4412
June 1-3, 2012	Chicago NOOD Chicago Yacht Club Chicago, IL	Valerie Mey 401-845-4412
June 2, 2012	Leukemia Cup New York Yacht Club Newport, RI	Brad Dellenbaugh 401-845-9633
June 2-3, 2012	East Coast Championship Cedar Point Yacht Club Westport, CT	Paul Beaudin 917-584-5194

#### Calendar

Duck Island Yacht Club   Westbrook, CT	June 9-10, 2012	New York Yacht Club	_
Alamitos Bay Yacht Club & Long Beach Yacht Club Long Beach, CA  July 13-15, 2012  Sail Newport Regatta Sail Newport Regatta Sail Newport, RI  Anderson Reggio 401-846-1983 Newport, RI  267-304-1873  July 19-22, 2012  NYYC Race Week presented by Rolex New York Yacht Club Newport, RI  July 26-29, 2012  Marblehead NOOD Corinthian Yacht Club Marblehead, MA  September 1-3, 2012  Annapolis Race Week Chesapeake Bay Yacht Racing Association Annapolis, MD  September 6-9, 2012  Rolex Big Boat Series St. Francis Yacht Club San Francisco, CA  September 22-23 and 29-30, 2012  American Fall Series American Yacht Club Rye, NY  October 13-14 and 20-21, 2012  Manhasset Bay Fall Series Manhasset Bay Yacht Club Port Washington, NY  October 17-21, 2012  North American Championship Jon Dekker San Diego Yacht Club San Fanciscon Chemican Championship Jon Dekker San Diego Yacht Club San Fanciscon Chemican Championship Jon Dekker San Diego Yacht Club San Fanciscon Chemican Championship Jon Dekker San Diego Yacht Club G19-838-5066	June 18-22, 2012	Duck Island Yacht Club	
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