

J.
105

In The Wind

J / 1 0 5 C l a s s A s s o c i a t i o n



Photos courtesy of: Tim Wilkes



J/105 North American Championship
August 10-14, 2011 • Eastern Yacht Club • Marblehead, MA
www.j105northamericans.com

S p r i n g 2 0 1 1 • V o l u m e 2 • I s s u e 2



NEW FALL CLOTHING AND GEAR IN STOCK
ALL ITEMS ON SALE



Proud Supporter of the 2010 J-105 North Americans

When it comes to specialty sailing supplies, the name Layline, needs no introduction. It was there for you all those years, shipping you orders of cutting edge equipment and apparel. And now it's back and better than ever. Fellow sailboat racers and expert management have taken the tiller and Layline has plotted a course back to the top of the fleet. We're glad to be back and we'd like to get J-105 sailors as excited as we are by offering a "Welcome Back Layline" website coupon code, **J105**, good till 12/31/11.

Visit our new website at Layline.com or call 1-800-273-9491.
Let us outfit your boat or team and take 10% OFF!

President's Corner

President

Bernard Girod
Fleet #8
805-682-6168 (H)
bgirod@yahoo.com

Vice President

Vic Forsyth
Fleet #17
713-609-5345 (O)
512-847-6153 (H)
vic@forsyths.net

Secretary/Treasurer

Joseph Colling
Fleet #22
216-496-6368 (O)
330-576-6430 (H)
usa3757@roadrunner.com

Measurer

Walt Nuschke
Fleet #3
717-762-2191 (O)
717-762-9232 (H)
w.nuschke@lsi-controls.com

Class Administrator

Chris Howell
440-796-3100 (O)
howell@j105.org

Past President

(voting member of the ExecComm)
Bee Bednar
Fleet #17
713-722-0740 (O)
713-722-0740 (H)
bee@panoramatech.com

Copyright Holder

(voting member of the ExecComm)
Jeff Johnstone
JBoats
401-846-8410 (O)
jeffj@jboats.com

Fleet At-Large

James MacDonald
Fleet #21
441-299-4950 (O)
441-293-8270 (H)
James.Macdonald@conyersdillandpearman.com

At-Large

Chris Perkins
Fleet #1
415-474-3425 (O)
415-563-1049 (H)
cqperkins@aol.com

At-Large

William Zartler
Fleet #17
713-217-2716 (O)
713-975-0009 (H)
bill.zartler@denhamcapital.com

The sailing season is now in full swing with all fleets racing actively. The NOOD regattas have been very well attended this year. *Current Obsession* dominated the San Diego NOOD; *Mirage* and *The Mystery Machine* were on top in Annapolis. In June and July, NOOD regattas are held in Detroit, Chicago, San Francisco and Marblehead—the latter being two weeks before the North American Championship (NAC).

Forty-one boats are currently registered for the NAC. Many of the top sailors in the country will be there—including 2009 champion Bruce Stone, and Brian Keane who has dominated Key West Race Week for the last few years. It should be a great and very competitive event. I will bring my boat from Southern California and hope to finish in the top 39, give or take one or two.

Your Class Officers have been hard at work. Walt Nuschke and Bee Bednar spent a huge amount of time trying to develop an APP for iPhones and Androids which would essentially give J/105 owners free and easy access to Kattack. The task is difficult and frustrating given our limited resources, but we believe it's worth pursuing. Kattack is a great tool and a wonderful way to build racing interest. We are also researching chartering to see if we can reduce travel costs—more on that subject later in this newsletter.

Several suggestions (about 10) for rules changes have already been made for 2012. We will study them and present them to you for discussion this fall. Please be sure to send any suggestions you might have to Walt Nuschke (w.nuschke@lsi-controls.com).

Our Class continues to thrive with several fleets reporting solid growth. We ask all of you to encourage other J/105 owners to register with the Class if they have not already done so, and to participate in the Class events of this wonderful boat.

All the best,

Bernie Girod, J/105 Class President



2011 J/105 NORTH AMERICAN CHAMPIONSHIP

MARBLEHEAD, MA

HOSTED BY EASTERN YACHT CLUB AND J/105 FLEET 2

AUGUST 11 - 14TH

FOUR DAYS OF SUMMER FUN, GREAT FRIENDS AND CHAMPIONSHIP RACING!

WWW.J105NORTHAMERICANS.COM

FOLLOW THE RACING ONLINE

JOIN THE ALREADY 40 BOATS REGISTERED

JOIN THE EVENT ON FACEBOOK

SPONSORS



Big Fleet Racing, Great Summer Venue

With less than two months to go, there are 41 boats registered for the 2011 J/105 North American Championship scheduled for August 10-14 in Marblehead, MA. The focus of this event has been, and will be, the racing. With the combination of PRO Ken Legler and Eastern Yacht Club's Race Committee, you can expect top-level, championship racing. Eastern Yacht Club has played host to a multitude of major local, national and international events—including in 2011, the IOD Worlds and Etchells NAs.

Good times will be had off the water as well.

Registration fees include dinners and social activities to take place at Eastern Yacht Club on Thursday and Saturday evenings, as well as a number of drink tickets to use at the after-race socials taking place each night. Thanks to *Southern Tier Brewing*, we will have some excellent beer to refresh the racers, volunteers and sailor support individuals.

Not sure you will be able to compete at the very top of the fleet but still want to make this a valuable, goal-worthy and fun event? Well look no further—we have North Sails professionals coming to provide an on-the-water clinic before the event. These professionals will give you their trusted and expert knowledge of J/105 tuning, trimming and racing. They will also be providing valuable one-on-one time on your boat before the event to help you perform at your very best. We will also be posting a prevailing wind 'cheat sheet' for the Marblehead area...stay tuned to the website (see link on next page).

Also coming soon is your personalized event apparel by Atlantis Weather Gear. Atlantis is providing a wide range of outerwear and sailing apparel that other events of this size would envy. Information is available on the event website for online purchasing.

We have a large list of sponsors who are helping make this event great. They include: Atlantis Weather Gear, North Sails, The Bowen and DeNapoli Group, Southern Tier Brewing, Points East Magazine, Waterline Systems, Atlantic Yacht Rigging and PhotoBoat. We are adding more sponsors each week and have just a few slots left. Contact us if you are interested in adding your company to this distinguished list.

For even more fun, arrive early and tune-up at the Sperry Topsider Marblehead NOOD Regatta from July 28-31 (<http://www.sailingworld.com/nood-regattas/marblehead>). Keep the boat in Marblehead and do the PHRF New England Championship from August 26-28 (<http://www.thenewenglands.org/>) with highly competitive one-design racing with a fleet of more than 20 J/105s.

For more information, continuing details, online registration and the entry list, check out the event website at www.j105northamericans.com.

A few local tips:

Book Rooms Early

Check out the Lodging page of the event website where there are links and information to a wide range of lodging options including yacht clubs, hotels, B&Bs, rental homes and more.

Moorings/Docks

Moorings will be provided by the EYC waterfront for the days of the event (VHF Channel 9 or 781-631-4059). Town dockspace has been filled. Marblehead Trading Company may have some limited dock space available (781-639-0029).

Launch Service

Will be provided by the EYC to and from moorings. If you are staying at the nearby Boston Yacht Club or Corinthian Yacht Club, they will offer launch service also.

Boatyards/Launching

Through Marblehead Trading Company, a package price is available for boats that require launching,

mast stepping and trailer storage. MTC operates three boat yards on Marblehead Harbor with crane service, a ships chandlery and full rigging and electronic specialists as well as full trucking services anywhere in the continental US for anyone who is interested in door-to-door trucking package (<http://www.marbleheadtrading.com/main.html>).

Measurement

Visiting boats are expected to have their boats certified by their fleets prior to moving them to Marblehead. Each owner will need to provide a copy of the weight certificate, preferably with your race entry application. There will be no provisions to weigh boats in the weeks/days preceding the event. We will be very busy going through the racing checklist for each boat in that time frame.

In the event you need to be weighed, contact either the Fleet 2 President Brian Harrington (wbharrington@comcast.net) or Fleet 2 Measurer Ric Dexter (ricdexter@comcast.net). The logistics of shipping the scale to another fleet is not difficult and can somewhat reduce the cost of the scale rental.

Other area Boatyards:

Brewers Hawthorne Cove Marina Salem (<http://www.byy.com/Salem/index.cfm>)
Crocker's Yacht Yard Manchester by the Sea (978-526-1971 or <http://www.crockersboatyard.com/>)

Contacts:

Doug Morgan
Race Chairman
617-833-3881
dougmorgan10@comcast.net

Carter White
Webmaster/Registration/Sponsorship
Regatta Promotions
207-671-7750
j105@regattapromotions.com



Cedric Lewis and Fredrik Salvesen's Mirage Tops the Highly Competitive 28-boat J/105 Class at the Annapolis NOOD

By Cedric Lewis

Our Mirage team picked up 2011 right where we left off after winning the 2010 Fleet 3 Championship. However, the two-point margin of victory at the Annapolis NOOD was closer than it should have been because we got complacent and it nearly cost us the regatta.



The Mirage team consists of—Danielle Vleno (bow), Fredrik Salvesen (helmsman), Cedric Lewis (tactician/ spinnaker trim), Molly Wilmer (numbers/ jib trimmer), Missy Salvesen (main) and Vernon Sheen (pit).

We didn't have a lot of time to prepare for the NOOD. The bottom was freshly painted but that was about it. The boat went in the water exactly one week prior to the NOOD. We had one Wednesday night race to shake off the rust, and it was a good thing, too! We broke a paw on the starboard cabin-top winch. The paw spring became lodged in the gears and grinding it didn't help matters. After a call to Jay Herman at Annapolis Rigging the next morning, they pulled the winch and took it back to the shop. It was back on the boat and ready to go Friday morning.

Friday—Day One

A cold front had pushed through the night before. West-northwest is not a typical direction for the breeze in Annapolis, and it sets up some interesting racing with the winds and current perpendicular to each other. The first day was puffy with gusts into the mid-20s late in the afternoon. We got off to a shaky start in the first race (of the series and season), rounding the first mark a little south of mid-fleet, but we battled back to fifth. You know what they say, "You can't win a regatta in the first race but you can certainly lose it." We wanted to stay out of that losing camp. We finished the day with a respectable 5-4-2, which was enough to take a two-point lead overall at the end of the first day. We felt pretty good about our performance, and we were headed in the right direction. The racing was extremely competitive with three different boats each winning a race: Chris and Carolyn Groobey on Java, Jack Biddle on Rum Puppy and Bob Reeves on A-Train. The top five boats were all within five points of the lead.



Photo courtesy of: Tim Wilkes

Saturday—Day Two

Day two brought more of the same conditions. The wind was out of the west, and had subsided slightly into the mid-teens but extremely shifty. During our "pre-game," we saw shifts through 20 degrees. The forecast for the day was all over the place. Some called for the breeze to ease and back; others called for it to build and clock. We saw more pressure on the right side of the course, and when the puffs came through they were righties. We decided to start at the pin but quickly get right. We got a good start with the Gitchell brothers on Tenacious to leeward and Gerrit Shulze on Max Power to weather. We were definitely not lacking boat speed and after two minutes, Tenacious had tacked and gone behind and we pointed out on Max Power to shed them. We continued just a little further and tacked on a nice lift.



We were just short of lay line to the mark. The boats on the right were hung out to dry, having to tack on a header and buck the current head-on all the way to the mark. Three of the top five, Mystery Machine, Java, and Hey Jude, all had their worst race of the series. For race five, the weather mark was now at 300 degrees, and we were firmly in the “clocking” breeze camp. We had essentially the same game plan for race five but decided to pay a little bit more attention to Tenacious. We played the shifts and finished fourth, one ahead of Tenacious. Peter McChesney bounced back from an 11th to win race five. There was a long delay before the last race of the day. The breeze had clocked all the way around to the Northeast. The RC had to pick up the entire race course and move it to the West because there was now a freighter anchored in the middle of our race course! Almost two hours after race five, we started the last race of the day; it went off just before 4pm. We got a good start, played the shifts and rounded fourth or fifth behind Peter (Mystery Machine). We jibe-set which paid immediate dividends, and by the leeward gate we had caught up to the leader. We split tacks after rounding different gates. We waited until we caught a slight lefty and went back at Peter. We were close, but we were also on port tack. We fell off slightly, making ready to duck Peter when Mystery Machine tacked to leeward. We headed back up to course and held them out to the starboard layline. We went on to win the race and Mystery Machine got second. At the end of day two, we had opened up a 10-point lead over Mystery Machine and 12 points on Tenacious.

Sunday—Day Three

Day three, we were back to typical Chesapeake Bay forecast. Winds were light, 5-10 knots, out of the SSW. We were confident with our 10-point lead and having won the last race, however we were also a little nervous. The breeze was light and fluky and Petey was on the move (1-2), and we had to keep an eye on him. The conditions were looking like we were only going to get

one race off even though the SIs called for two. We set up closer to the pin, and the tide was ebbing big time! The gun went off, and it is apparent that there are a lot of boats OCS. The RC calls the first set of numbers from the committee boat side followed by the rest of the numbers called from the pin end. After about a dozen numbers, we were the last number called OCS! We turned back, but it was an agonizing struggle against the current and the rest of the boats were quickly doubling their distance upwind on us. We cleared up and started upwind. Well, we certainly had our work cut out for us. We got to the weather mark, and at this point it was easier to count the boats behind than it was to count the boats ahead. We were in fourth...from the back! This is where we played our local knowledge card. The RC set the weather mark inside of the line between Tolly Point and Thomas Point. We know that during an ebb current, the water coming out of the Severn River flows directly



and strongly from Tolly Point to Thomas Point. If you can get inside that line, you can get significant relief. Ahead of us, every boat just bore off, set their chute, and headed straight to the middle of the bay and the brunt of the current. We were so far back we had to take a risk, so we jibe-set and headed “up-current” first. It was tough to swallow at first. We were literally on a heading where our VMG to the gates must have been close to zero or even negative. We knew from our pre-race numbers collection that we were seeing ~.9 knots of current at the leeward gates. We were only seeing ~.4-.5 knots which started to give us confidence that we were doing the right thing. Further reinforcement came when we got closer to Tolly Point and the mouth of the Severn River, and we picked up some extra breeze just as the rest of the breeze was dying on the race course. Moment of truth: we jibed for the gates. Looking good! We were headed right for the gates. Peter was around first on



Photo courtesy of: Tim Wilkes

Mystery Machine, but we rounded the opposite gate at the same time! We match-raced upwind and downwind and managed to get inside of Mystery Machine and held them to the layline for the finish, completing an improbable comeback. We definitely pulled a rabbit out of the hat on that one!

In the dying breeze, the J/105s all trickled in followed by the J/30s and the wind shuts off. So we were pretty confident and hopeful that we were done for the day. We started packing up the boat and waiting for the RC to call it a day. After about an hour, the Melges 24s withdrew (all six of them). They had had enough. It was now close to the time limit for Sunday, and we still have less than five knots of breeze. The RC continues to wait for another half hour and just before the time limit, they decided to start another race. We had drifted away from the starting line and when the RC went into sequence we had to scramble to get back to the starting area. Also, the Melges 24s were no longer starting in

front of us. We made it back in time, but we were not prepared and we were forced to start at the wrong end of the starting line (because it was closer). Meanwhile, Peter McChesney remained close to the committee boat, started at the favored end of the line and won the race. We were 12th at the weather mark and passed two boats and finished 10th, our worst race, and narrowly won the series by two points. So the lesson is (and how many times have you heard?), “It ain’t over until it’s over!”

Complete results may be found at 2011 Sperry Top-Sider Annapolis NOOD: Results.

Come to Annapolis this fall on your way to Key West for the J/105 East Coast Championship (October 29-30). The AYC Fall Series is October 1, 2, and 8, or just come for the J/105 East Coast Championship.



Order regatta prints from
TIM WILKES PHOTOGRAPHY
5x7, 8x10, 11x14, 16x24, and larger

Mention this ad to receive regatta
discount pricing!



Fine Art Canvas Prints and Custom Photo Albums

Each album comes with 10 prints.

Small Album \$159.95

Large Album \$299.95

Visit our Website and Order To-

www.timwilkes.com

585 423 1966



Chartering a J/105

We all appreciate the great attributes of the J/105. The fact that there are a large number of these boats in the country and so many interesting and competitive Class events has most of us wishing we could participate in more out-of-town events. Events like Key West Race Week, Block Island Race Week, Big Boat Series and the North American Championship have all of us salivating.

If an out-of-town event is one that can be reached motorsailing in a day or two, the task is relatively easy. On the West Coast, for example, boats sail from San Francisco to San Diego and all points in between on a regular basis.

Costs

However, like all fixed-keel boats, the costs go way up if it needs to be shipped over the road. Assuming a charter cost of \$1,500 per day (more on that later), chartering for a three-day event would cost \$4,500. To ship a boat would cost about \$2,000 for yard fees (4 haul-outs and rigging). If you have your own truck and are prepared to do all the work associated with hauling a boat, you may end up ahead financially by towing the boat to most places, even with diesel at \$5 per gallon.

Although several owners have their own tow truck, most of us choose to use a professional driver and truck to transport the boat. The costs do not vary much between towing a boat on your trailer or on a flatbed truck, currently about \$3.25 per mile. At that rate, your breakeven point is 800 miles for a three-day event. In other words, if you transport your boat more than 800 miles, you are better off chartering, assuming of course that you can find the right boat (see below). The simple math suggests that chartering is most attractive financially for shorter events, e.g. one to three days. And it saves a lot of time in logistics, plus wear and tear on your boat.

I am only focusing on transportation costs for now. Of course there are other costs for out-of-town events such as airfare, hotels, meals, etc...but you will incur most of these costs whether you charter or use your own boat. Insurance needs special attention—see below.

Given the fact that we have more than 600 boats nationwide, with many not racing actively, I believe it is an ideal situation for chartering. But we need to facilitate the process to make it easier/more accessible to both the owner and the charterer.

Selecting the boat

I will make only a few comments about the selection of the charter boat. I am sure all of you know how to do that. For us, we check the race record, make sure the bottom of the boat is in good shape and that the roller furling gear and instruments work well. We take our sails, halyards, sheets, tools and spare parts. We arrive a few days early and tune the rig for the conditions and our sails. What a pleasure it is to arrive at the dock, step aboard and just go sailing.

Insurance—Borrowed Boat

One of the big hurdles for chartering is insurance. There is inexpensive non-owned charter coverage for smaller one-design boats, but I have not found any for boats over 30'. There are also charter programs for large boats such as TP52s, but those policies are very expensive.

If you simply borrow the boat with the permission of the owner, and no money changes hands, then the owner's insurance policy stays in force since you are a "permissive user." The owner does not need to be aboard, although it might add a comfort factor for both parties. The policy limits of the owner apply. A person using a borrowed boat will often agree to cover the deductible under the owner's insurance policy in case of damage.

You should check the owner's liability coverage and make sure the policy covers the underlying requirements of your umbrella policy. For example, if your umbrella liability policy requires underlying coverage of \$500K, make sure the owner's policy has a \$500K limit so there is no gap. In some cases, the boat insurance of the borrower applies, but it is not universally so. Check your own boat's insurance coverage if you plan to borrow a boat. By the way, an umbrella policy is highly recommended. Most umbrella policies prohibit racing, except for sailboat racing. Make sure yours permits sailboat racing.

Insurance—Charter

In most cases, money changes hands. The owner rightfully wants to be compensated for the use of his/her boat. I have paid from \$1,000 to \$2,000 per day for a charter boat using my own sails. In a charter situation, the insurance company views it as a commercial transaction subject to a separate agreement, and neither the charterer's policy nor the owner's policy applies. A number of artful dodges have been used over the years, like buying a set of sails for the owner in lieu of direct payment, "hiding" any payment and/or having the owner aboard. But I would not want to test that situation in court in the event of serious damage or liability. If the owner claims you are covered under his/her policy, be sure to have that statement specified in the charter agreement and have your name put into his/her policy as an "additional insured" person. Be careful here: some so-called "Demise Charter Agreements" turn all the liability exposure to the charterer.

The physical damage to the boat is easier to manage. The 105 is very solid, and the charterer often agrees to simply self insure, covering any damage to the boat while racing.

The liability side of insurance is the issue. If you have an umbrella policy, you will be covered beyond the underlying policy requirement, usually \$500,000. Since the owner's policy does not apply, you will have that first-dollar exposure in the event of a liability claim against you. I understand that there is a supplemental insurance policy you can buy which would cover that first exposure, but it is apparently difficult to obtain.

A good solution is to find a charter boat offered by a third party who carries insurance as part of the business. Yacht brokers and sailing schools are such sources. Again, you might want to clarify the liability coverage to make sure it dovetails into yours.

Please note that I am not an insurance professional. I have gathered the above information by speaking with people who know this field, and I believe it to be accurate. But there are many different types of boat and insurance policies. You should check with your own insurance agent before proceeding with a charter.

A Happy Experience

I have chartered 105s in Annapolis, Key West and San Francisco and was satisfied with each one. The charter in San Francisco worked out particularly well. We chartered the same boat three years in a row from a sailing school. The owner used the charter proceeds to upgrade the boat, investing in a new roller furling system, new instruments and a new bottom. We used his sail tags so we were able to get heavy air sails for the breezy bay. The boat was fast, logistics were easy—just step aboard and go.

This is our first pass at a very complicated subject. We will keep working on it, and as new information surfaces, we will provide updates. Many of you have had experience chartering boats. We would appreciate any comments you might have.

Stick to Your Plan Because It's Your Race to Lose

By Paul Beaudin, J/105 Specialist for Doyle Sailmakers in New York City and happy owner of J/105 #334 *Loulou*



Outside of blowing the start, not sticking to the game plan is probably the number one reason for a 'less than stellar' race result. This happens all the time, even to the best of them. We take the time to develop a winning game plan and then don't stick to it.

Here is a typical scenario: before the race, we see stronger wind on the right side of the course. The right is historically 'the good bet,' so our plan is to head right and protect that side of the course. We get into the start sequence, and the pin is very favored. One thing leads to another, and we are charging off the pin end with 'the perfect start.' We can easily cross the pack starting at the committee boat.

This is where it starts to go wrong. We could cross the whole fleet to go the way we want—just, except, for this one boat right on our hip that also came off the pin with speed. We can't cross, and the other boat does not seem interested in tacking—even if it is the right way to go. A big duck will be costly and would probably cause us to duck other boats too.

Next mistake: we start to justify our position. "Maybe this side isn't too bad. This other boat is the problem." Before we know it, we stopped thinking about the big picture and are deeply focused in this new mini match race. "OK team, it's not that bad. Put the bow down, super hike, trim like crazy."

After a few minutes, we have put this boat far enough back to tack and clear. "3,2,1 tacking. Phew, finally." Now, the reality check comes crashing in. The leaders from the right are tacking back and crossing by, easily, 20 lengths. Ouch! Even the slowest boats with second row starts that went the right way are crossing. "How

come we didn't see that earlier?" Well, we did see it earlier, even before the start.

A perfect plan—absolutely not executed.

The review: develop a plan before the race. Look at the conditions along with your experiences (local knowledge) and decide a plan for, at least, the first beat. Maybe if I want to go right, a favored pin end is not that favored.

Things I consider when making a plan: Where is the best wind? Does one side have stronger wind? Favorable current? Is there "geography"—areas of the course that have better conditions? Perhaps a lifted tack sailing along the shoreline?

If we have determined the breeze is shifting (oscillating) from side to side, it is a sound tactic not only to sail on the lift, but to position your boat to take maximum advantage. This is referred to as 'hitting the first shift.' Start on the lifted tack and position your boat to be in a good place to tack and take advantage of the next, or first, shift.

All things being equal and without change, your plan, if correct, should work. You should only alter your plan if the conditions change.

Here is a true story from a J/105 regatta a few years back: we were racing in a narrow bay where hitting the starboard shore, traditionally, pays with big starboard lifts. In the first race, we played the game, along with the bulk of the fleet. We soon realize, for some reason, that this year getting too close to the beach was not panning out like it usually did. The bluffs along the shore were making the wind erratic. We were getting

the lifts, but mixed in with, bigger than usual, lulls. Just staying offshore a bit had smaller lifts but steadier wind and was really working. Thankfully, being in one of my more dramatic moods, I tasked one of the crew to never let me go for the inside lane ever again. My words: “shoot me if you have to.” And, thankfully, the crew listened and did her job very well. Several times, in subsequent races, for one reason or another, we would charge for the inside lane, and I would hear a quiet voice from the rail, “Paul, you said never.” My typical retort was, “but, this tactical, blah, blah, blah.”

Thankfully persistent, the crew replies, “You said never, and shoot you if necessary.” That actually worked, and as hard as it was to be lectured by the rail, I steered clear of the inside shadow, and we went on to win the regatta.

I should put this in the tuning guide. Give every crew member at least extra one job that is not about sail handling and is about playing the game of sailboat racing—an ‘out of the boat’ job, such as checking the other boats’ headings, tactics, traffic, etc. We’ll

call this new job ‘the keeper of the plan’ to remind us about the game plan (constantly if necessary) and what has been working on the course for the day.

The above story showed a typical plan that was altered due to a minor change in the prevailing conditions. With this, I will impart a simple trick used frequently by the top boats to dig back from missing a change, or more commonly, from not sticking to their game plan in the first place.

Nobody’s perfect.

The secret: learn from the race and go the right way. Unless things have changed, if the right side paid big on the first beat, it will pay again on the second beat. It is amazing how many boats seem to forget what had just worked and don’t repeat it. Maybe it is just not as obvious from the front as it is from the back. So, learn from the race. Pay attention to what is working and do it. Making good observations on what is going on in the race is a very smart tool. Going fast the right way, good; going fast, well, the wrong way...you get it.



PHOTO BY WALTER COOPER

**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.

WIMRA
WOMEN'S INTERNATIONAL
MATCH RACING ASSOCIATION

Technical Committee Report

By Walt Nuschke (Class Measurer, Fleet 3, Annapolis),
Pat Benedict (Fleet 1, San Francisco), Robert Baker (Fleet 4, Toronto)

Thinking About Weight Distribution

All racing sailors have some level of understanding regarding weight distribution. The J/105 is no exception to the basic fact that weight distribution matters. The discussions that led to new rules 7.3G and 5.3.20 were all about the effects of weight distribution, particularly relative to pre-scrimp boats, where all the correction is done between the two bulkheads. Anyone who has driven a pre-scrimp boat in waves will understand this completely.

How the effects of weight distribution can be measured

There is a technique used by engineers to analyze weight and force effects called Load Moment Analysis. This is normally the entire subject for an engineering course so here is a quick explanation that will enable you to quantify the effects. (My apologies to any engineers for the simplifications I have injected.) This discussion is primarily talking about fore-aft weight distribution, although there is some mention of side balance later in this article. The same process affects all dimensions of measurement.

The principle is that for any object that is in equilibrium, the sum of all the Load Moment Vectors (LMV) measured relative to a common reference point is zero. The magnitude of the LMV is calculated by multiplying the distance from the reference by the force (weight). The normal way this is done is to refine each component into a Center of Gravity (CG) that is represented by a vector relative to what I will call the Center of Balance (CB) of the boat. In order to keep this simple—the effects from motion through the water are ignored, and the LMVs are simplified as two dimensional values. In our case, the goal is to make weight distribution decisions based on some facts.

In the illustration, some components are shown with approximate dimensions relative to each other. The two battery positions provide a relevant example. I once weighed a battery and case at 43 lb, and the fore-aft difference in positions is about 42 inches, then the relative difference in LMVs is $42/12 * 43 = 150.5$ ft-lb. Anyone who has used a torque wrench will have a functional appreciation of the significance of 150.5 ft-lb. What this means in practical terms is that the aft battery position will generate about 150.5 ft-lb more pitching force (than the forward position) any time the boat is out of equilibrium. An example of out of equilibrium is when the bow is forced up by a wave or any motion that requires a change in momentum.

How to find the Center of Balance for your boat

The items on the boat, including sails, should be set up similar to the way they would be when sailing. It is helpful to do this on a quiet day so the boat isn't bouncing around.

The fore-aft balance point can be found by placing a level on the boat so the bubble is at the center with no one on the boat. This will allow you to easily see the effects on boat balance as weight distribution is changed. Watch the motion of the bubble as you get on the boat and shift your weight fore and aft. You will find a point where the bubble moves one direction, and then the other direction, by shifting weight from one leg to the other in a fore-aft direction. This is a good estimate of the CB. On my scrimp-built boat, the CB is just forward of the dodger snaps, but we know from observing how boats hang when lifted by a single point lift that this is not the same on all boats.

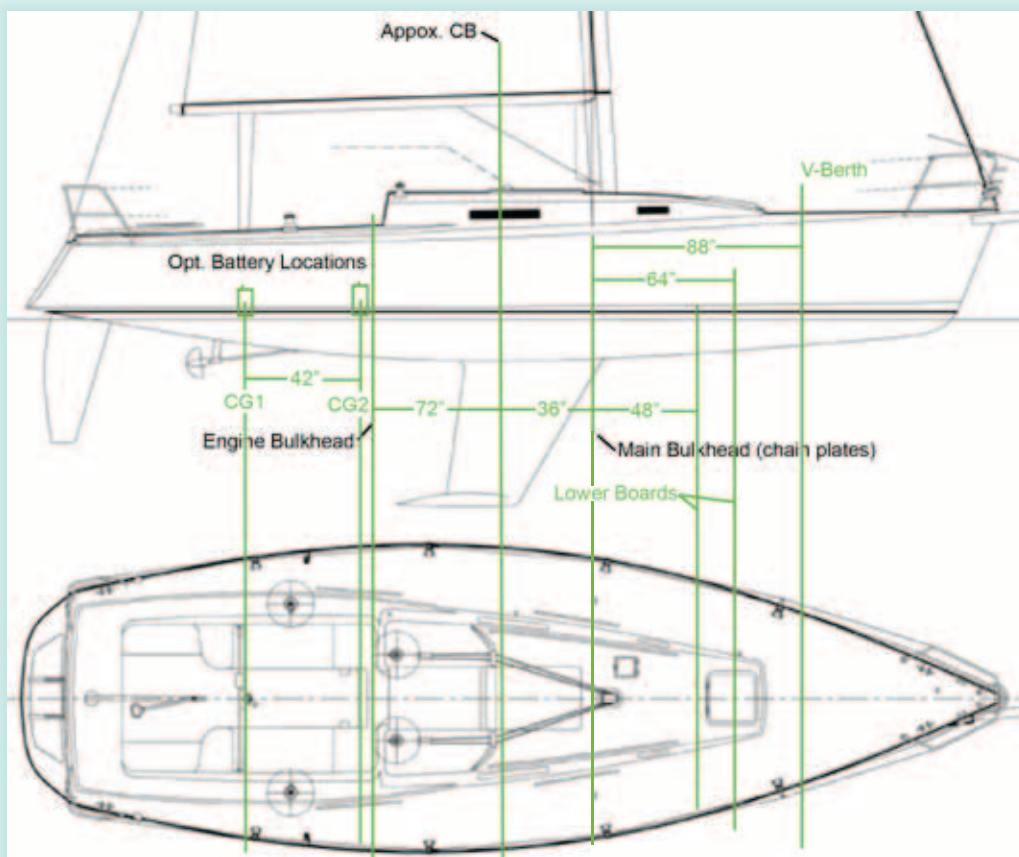
The CB is useful, not only for finding the effects of equipment distribution, but also for decisions regarding dynamic weight distribution of the crew. Instead of general commands like "Let's get weight forward," it is possible to calculate the effects of how many and how far. Too much of a good thing can be a bad thing.

The port-starboard balance point can be found using the same method. The first thing you will find is that the boat does not sit level in the water. If you put two boats stern to stern, the difference is obvious in the angle between the masts. This is caused by the fuel tank and head being on the port side. The obvious effect of this is the heeling angle will be different on opposite tacks. On my boat (scrimp, Euro interior), it takes about 70 lbs on the starboard side to get the boat level. New Rule 5.3.20, that allows boats with the battery aft and to port, to move it forward and to starboard, will see some improvement in both axis of balance.

Quantifying some other options

The illustration shows the approximate positions of some other optional items. Below are some calculations that put these in perspective. Note that I don't have data for the head door but anyone can measure this for comparison to these figures. The dimensions are taken from an approximate CB.

- Lower aft board: $(36 + 48)/12 * 9.2 = 64.4$ ft-lb
- Lower front board: $(64 + 36)/12 * 8.0 = 66.7$ ft-lb
- Each v-berth board: $(88 + 36)/12 * 11.5 = 118.8$ ft-lb, 237.7 for both
- Aft battery: $(42 + 72 + 5)/12 * 43 = 426.4$ ft-lb
- Forward battery: $(72 + 5)/12 * 43 = 275.9$ ft-lb



Some practical conclusions

1. The issue with weight is all about dynamic response by the boat when it is forced out of equilibrium. Examples of this are tacking and crossing waves. Priority should be given to the items that have the largest net effect on LMVs.
2. The goal of balancing the boat is to get the fore-aft LMVs as short as possible. Most of the equipment is required by rule so the emphasis should be on optional items. Find the Center of Balance and do your best to concentrate optional weight there.
3. The first priority, if the battery is in the location behind the engine, is to move it to the optional forward position. The value of this is clearly shown in the calculations. This is a fairly simple DIY project and requires some basic tools and some scrap marine grade plywood. Make sure to secure the battery so it doesn't fly around in a capsized.
4. The second priority should be the upper v-berth boards. If this is done, it is a good idea to replace them with mesh to protect the spinnaker from catching and tearing.
5. When adding weight to bring the boat to Class minimum, make sure to distribute with the dual goals of leveling the boat port-starboard and concentrating at the fore-aft center of balance.
6. Distribute optional equipment, crew gear, etc., with the same goals as item 2.
7. The ability to remove items is limited by CR 7.3. Read this carefully.

Calendar

Dates	Event	Contact
June 24-26, 2011	Long Beach Race Week Alamitos Bay Yacht Club & Long Beach Yacht Club Long Beach, CA	ABYC 562-434-9955 LBYC 562-598-9401
June 25-26, 2011	San Francisco NOOD St. Francis Yacht Club San Francisco, CA	Valerie Mey 401-845-4412
July 9-10, 2011	Newport Regatta Sail Newport Newport, RI	Part of Narragansett Bay Championship 401-846-1983
July 23-24, 2011	West Passage Regatta Wickford Yacht Club Wickford, RI	Part of Narragansett Bay Championship 401-294-9010
July 28-31, 2011	Marblehead NOOD Corinthian Yacht Club Marblehead, MA	Valerie Mey 401-845-4412
August 10-14, 2011	North American Championship Eastern Yacht Club Marblehead, MA	Doug Morgan 617-833-3881
August 19-21, 2011	Great Lakes Championship Royal Canadian Yacht Club Toronto, ON	Jim Rathbun 416-444-0468
August 20-21, 2011	J/105 SoCal Championship Long Beach Yacht Club Long Beach, CA	Chuck Driscoll
September 3-5, 2011	Annapolis Race Week Chesapeake Bay Yacht Racing Association Annapolis, MD	Carl Gitchell 410-626-1055
September 8-11, 2011	Rolex Big Boat Series St. Francis Yacht Club San Francisco, CA	Race Office 415-563-6363
October 28-30, 2011	J/105 East Coast Championship Annapolis Yacht Club Annapolis, MD	Carl Gitchell 410-626-1055
October 29-30, 2011	Texas J/Fest Lakewood Yacht Club Seabrook, TX	Fleet 17
January 16-20, 2012	Key West Race Week (Mid-Winter Championship) Key West, FL	Peter Craig 781-639-9545
April 19-22, 2012	Charleston Race Week Charleston Harbor Resort & Marina Mt. Pleasant, SC	Daniel Havens 843-722-1030, x18



FAST

...the power to perform

 **FOR THE RECORD**

J-105 RESULTS 2010
Chicago NOOD.....2nd
Verve Cup.....2nd
Macinac Sec.....3rd

MORE RESULTS
KWRW.....1,2 5
Annapolis NOOD.....1st
SCC Spring Big Boat..1,2
Miles River Race..2,3,4
Solomons Island Race..1st
Screwpile Regatta....2nd
CBYRA Race Week....2,3,4
Race to Oxford.....1st
Hammond Memorial..1st
Hospice Cup.....2nd
Ches Bay Champs....2,3



Better by Design
216-361-2594
www.northsails.com
North J105
CSD Class Leaders
Will Keyworth
will@sales.northsails.com
410-269-5662
Seadon Wijsen
seadon@sales.northsails.com
415-339-3000



Photo courtesy of: Tim Wilkes



Photo by Lynn Bethell



**20
years**

visit: www.APSltd.com
best: Customer Service
turf: Annapolis, MD

The World Leader in Outfitting Performance Sailors.