

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



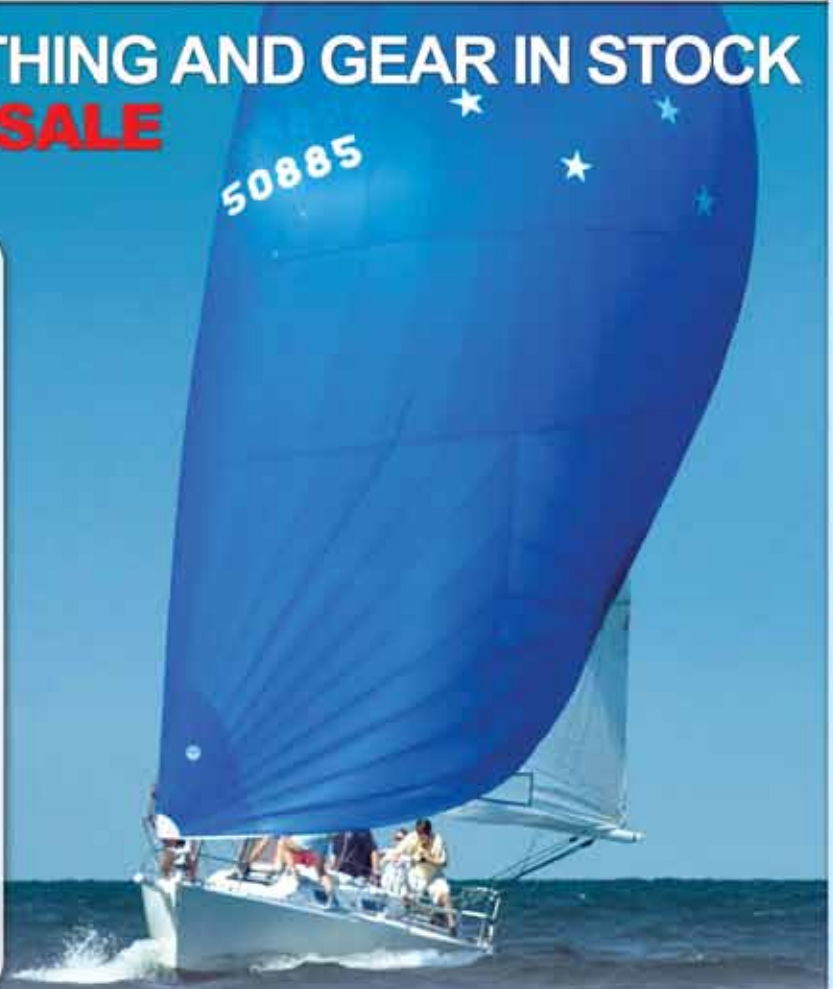
Brian Keane and Savasana
Claim Third Consecutive Victory
at J/105 Midwinter Championship

Photo courtesy of: Tim Wilkes

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The sailing season got off to a great start with Key West Race Week. Fourteen boats were on the line with some of the very best J/105 sailors in the country. Brian Keane's *Savasana* won the first race. After a two-year absence, *Masquerade* returned to Key West, winning the second race and the #1 spot overall at the end of the first day.

The racing was very competitive, with 10 out of 14 boats finishing in the top three spots in at least one race. But *Savasana* dominated the event as they have for the previous two years, winning six out of 10 races and finishing with 26 points—15 points ahead of #2 *Eclipse*. *Wasabi*, *Masquerade* and *Max Power* followed—only three points apart.

For those of us unable to attend, it was great fun to be able to follow the racing live on Kattack. Many of us were glued to our screen that week. In California, the crew of *Rock & Roll* toasted *Savasana* with a rum punch on the last day—it was almost like being there. We are now working on the development of a phone app for Kattack, which would eliminate the need to rent their unit. We hope to be able to accomplish this development in time for the North American Championship in August.

All the proposed rule changes passed with a comfortable margin. Please don't forget to send your weight certificate to Chris Howell (howell@j105.org). It will help us take care of recurring issues at registration.

The website for the North Americans is live (www.J105northamericans.com). Several boats are already signed up, including *Rock & Roll*. The Marblehead NOOD is two weeks before the NAs, and will provide a very good tune-up opportunity. This should be a very well attended event.

Fair winds,

Bernie Girod, J/105 Class President



Photo courtesy of: Tim Wilkes

Key West Race Week 2011

By Brian Keane, *Savasana*

I want to start by thanking Chris and Julie Howell for everything they do for the J/105 Class. They are like an iceberg. Most of what they do is seen by none, but their impact is enormous. I know that I speak for the Class in expressing the genuine appreciation for what they do.

A few days after Key West Race Week was finished, Chris and Julie asked me to write a daily assessment of the regatta. I have no notes, and my daily technical data of rig tuning remains with the boat which is still down south. So I will modify their request and attempt to share my thoughts and experiences with KWRW 2011.

I must start by saying this has to be my favorite regatta of the year. I am from New England, so a trip to Key West in mid-January is a very sweet thing for me and my team. The event, however, does not begin mid-January. If your team is like mine, we are usually 80-90 pounds overweight with 60 days to go to the regatta. Unfortunately, those 60 days include Thanksgiving and Christmas. Everyone has their weight target by late November. I have learned that it makes sense to check in with the team just after Thanksgiving, and again just before Christmas. I know their actual weight doesn't matter at this time, but I want them to know that "Big Brother" is looking after them. Beginning January 2, we have daily e-mail check-ins with our weight.

The discussion and banter during these daily e-mail check-ins are priceless, and not available to the public. I never question whether my team will meet their individual weight targets. It is an unspoken rule that we all understand. The one person who didn't make weight has never sailed on the boat since. Instead, these daily weight checks are to bring the team together. It has been months since most of us have sailed, especially as a team. It is amazing how much the team can come together in the weeks before the regatta. As part of this pre-regatta routine, I often send my regatta notes from prior years, so everybody understands the analysis of what we did well (or not well) and the lessons learned.

Most of us arrive the Friday before racing begins. Our primary motivation is to weigh-in so we can begin to fatten up. I usually have a connecting flight in Miami, and every year I can't help but to notice the huge number of sailors. Sailboat racers have a certain look that is recognizable from a great distance, and the only topic of conversation between us is how hungry everybody is. The actual weigh-in was uneventful for us as the whole team was at or under their assigned targets. On our team, the unspoken understanding is that Friday night can be a fun, late night once weigh-in is behind us.

The *Savasana* team does everything together. Not just during the weekend before, but every day the team walks to the boat together. We sail, practice, race and try to learn. Every night, we attend the "tent" party. We do it as a team, and we love to meet up with our colleagues in the J/105 fleet, or sailors that we know in the other fleets. We actually believe that the new format of Key West this year was excellent. The old tent party could be on any parking lot in the world. This year's "tent" party brought the personality and brilliance of Key West.

After the tent party, we always have dinner as a team. Over the past nine years, we have fallen into somewhat of a routine. This year, my team suggested that we explore new boundaries in Key West, just as Premiere Racing had done with the new venue. It was fun...discovering new, great restaurants.

Our practice during Saturday and Sunday were valuable, but unsettling. The best part, of course, is to do zillions of boat-handling drills, and time-to-mark

testing. The good news is that my team came together so quickly. It gave us the confidence that we could be aggressive in any and all windows that appeared. Thanks to the team, we passed lots of boats in tactical situations. The concern in our weekend practice was that our speed was OK, but not great. I way prefer to be in the situation where our speed is awesome, so we have room to be stupid. It seemed that wasn't the case this weekend.

During weekend practice, we sought out other J/105s that we could sail against. We knew we were rusty, and needed the tuning. Frankly, the whole fleet needed some tuning. I want to thank those boats that were open to practicing with us. I wish more would join the group learning.

We didn't buy any fancy, special weather forecast. It was obvious from Sailflow, as well as the North Sails forecast, that we were in for a week of light air. Most of those forecasts are wrong, anyways. My goal going into the race was to have a clear lane so we could sail



Photo courtesy of: Tim Wilkes

our race. The first race on Monday worked as planned. We got off the line, found a lane, and played the shifts and velocity. The second race continues to bother me. We were in the top 2 or 3 for the first four legs, and then just lost our mojo on the fifth, last leg. As the air lightened, it was clear that we didn't have speed and, in retrospect, we made some bad tactical calls up the last windward leg. 1, 6 for the day....not a winning combination.



Photo courtesy of: Tim Wilkes

Prior to the second day of racing, I knew it was again going to be light air. My dock adjustments were to slightly tighten my uppers and mids. I was afraid that the loose rig was causing the foils to bounce around too much and unable to establish the optimal flow. I think it was a good adjustment. Instead of my crew telling me we were "slower and lower," they conceded that we were "even, even." The real problem in race 3 is that we were over early and didn't hear our number until very late. What is unusual is that we found it very difficult to battle back. Our worst finish was in race 3. We were at 1-6-8 after three races while the four-time KWRW winner *Masquerade* was at 2-1-2. I was not happy.

Between races, I may have tightened my rig a bit more going into the fourth race. In any case, we felt smart and competitive...and we won. I think we were in third place after Tuesday, but we had learned a lot. After the fourth race, we felt the rig was good, and never changed it for the rest of the week. Instead, we turned our attention to starts, lanes and tactical situations (especially mark roundings).

Wednesday was Mount Gay Rum Day so the team was extra motivated to win and take home the very

drinkable daily awards. Unfortunately, the wind was particularly light, and we knew it would be difficult for the Race Committee to get off two races. We also knew that in these light, choppy conditions that we needed to find a lane, stick the bow down and go. Regrettably, it appears there are no Kattack results for race 5, so it is impossible to analyze the data. We did win the race, and I believe that it was because we had good speed and minimized any tacks. Due to the light wind, there was only one race on Wednesday which means that everyone got back to town early.

Success at Key West Race Week is partially correlated to speed, tactics and luck. The other ingredient is getting the team to bed, which is especially difficult with the distractions on Duvall Street. In years past, I would worry and wonder when my team would come home at night. Maturity, it seems, has taken over in recent years and Team *Savasana* generally got to bed at a half decent hour. After a short Wednesday on the water, I was particularly pleased when the team made it an early night.



Photo courtesy of: Tim Wilkes

Going into Thursday, we finally had a small lead over *Wasabi*, *Eclipse*, *Masquerade* and *Max Power*. However, I know that anything can happen in this fleet in just one race. We were particularly nervous about *Eclipse* because we felt they were a bit faster than us, plus they dominated the J/105 Class during 2010. We thought that we had sufficient speed and, therefore, just wanted to have a lane so we can sail our race, play the shifts, and avoid the stupid mistakes. We sailed two clean, but unspectacular races and got a 2, 4 which was tops for the day and gave us a bit more cushion going into Friday.

Sailing out to the course on Friday morning, we had a seven-point lead over Damian Emery's *Eclipse*. We decided to ignore the other boats during the start routine and do what we thought made sense. We expected the wind to be shifting to the right during the day so we wanted to protect that side whenever possible. For some reason, it all came together on Friday. We played the shifts well, had decent speed, and changed gears quickly. Three bullets is a great way to finish a regatta.

I want to take a moment to discuss the data available from Kattack. There is so much data available that it is easy to get lost in it and miss some interesting analysis. All week we felt that *Eclipse* was the fastest boat, and we kept a careful eye on them. *Wasabi*, too, seemed fast, particularly early in the regatta. It is true! With data from nine races, it shows that *Eclipse* had the fastest average speed of 5.63 knots. *Savasana* was second at 5.544 knots, and *Wasabi* was third at 5.492 knots.

Speed alone, however, doesn't tell the full story. For the week, *Masquerade* actually raced the shortest distance (96,471 meters), followed by *Gumption3* (97,458 meters), and *Savasana* (97,805 meters). *Eclipse*, the speedster, raced more than 4 kilometers further (100,984 meters) than *Masquerade* and more than 3 kilometers further than *Savasana*. Conversely,

Masquerade's average speed throughout the week was nearly 0.3 knots slower than *Eclipse*. Fortunately for *Savasana*, we had pretty good speed, called some good tactics, and always remained focused on VMG. Further analysis of the Kattack data can inform each boat where their relative strengths and weaknesses are, at least in the relatively light conditions found in Key West this year.

Fourteen J/105s competed in the regatta. Results as follows:

Brian Keane, Savasana (26 points)
Damian Emery, Eclipse (41)
Adam Rosen/Jeff Marks, Wasabi (55)
Tom Coates, Masquerade (56)
Gerrit Schulze, Max Power (58)
Bill Zartler, Solaris (62)
Carter Williams, Creative Destruction (75)
Travis Weisleder, Lucky Dog (76)
Kevin Grainger, Gumption3 (82)
Ken Colburn, Ghost (85)
John Gottwald, Eagles Wings (98)
Chuck Millican/Dave Brining, Elusive (103)
James MacDonald, Distant Passion (116)
Peter Rugg, Jaded (121)



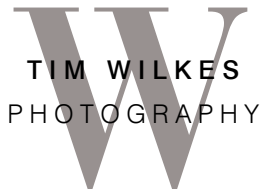


Photo courtesy of: Tim Wilkes

KWRW 2011 Performance Metrics

DISTANCE SAILED (meters)	1	2	3	4	6	7	8	9	10	Total Distance
Masquerade	13009	17609	13003	10774	5211	10166	10198	9872	6629	96471
Gumption3	13396	18317	13039	10439	5127	9979	10240	10204	6717	97458
Savasana	12804	17747	13236	10742	5236	10508	10365	10317	6850	97805
Elusive	13197	17645	12715	10825	5155	10438	10988	10806	7210	98979
Solaris	13288	18681	13243	10863	5347	10438	10532	10030	7119	99541
Distant Passion	13124	18742	13767	10774	5213	9981	10650	10703	6781	99735
Max Power	13118	18343	13061	11178	5290	10600	10604	10920	6731	99845
Lucky Dog	13374	18054	13029	10606	5321	11092	10765	10796	6933	99970
Wasabi	13238	18388	13253	10875	5145	10818	10662	10907	6889	100175
Ghost	13570	18185	13510	11016	5382	10590	10368	10483	7209	100313
Eclipse	13279	18542	13270	11032	5305	10932	10724	10872	7028	100984
Creative Distruction	13762	18571	13176	10832	5217	10316	10989	11069	7313	101245
Jaded	13528	18956	13405	11311	5351	11347	10954	11176	7216	103244

Boat Speed	1	2	3	4	6	7	8	8	10	Average Speed
Eclipse	6.11	5.53	6.59	5.44	5.35	5.03	5.94	6.07	4.61	5.630
Savasana	6.09	5.35	6.23	5.6	5.22	4.9	5.84	6.03	4.64	5.544
Wasabi	6.19	5.62	6.2	5.4	4.83	4.88	5.81	5.99	4.51	5.492
Creative Distruction	5.94	5.63	6.28	5.25	4.83	4.82	5.77	5.99	4.63	5.460
Max Power	5.84	5.56	6.16	5.67	4.99	4.98	5.66	5.84	4.26	5.440
Jaded	5.98	5.54	6.14	5.19	4.96	4.97	5.78	5.95	4.33	5.427
Ghost	6.11	5.46	6.29	5.12	4.98	4.83	5.79	5.94	4.29	5.423
Lucky Dog	5.98	5.56	6.14	5.22	5.07	4.93	5.72	5.88	4.28	5.420
Solaris	5.91	5.03	6.26	5.34	5.18	4.82	5.79	5.76	4.5	5.399
Masquerade	6.11	5.52	6.39	5.11	4.8	4.77	5.6	5.64	4.28	5.358
Gumption3	6.1	5.39	6.33	4.9	4.86	4.65	5.5	5.65	4.06	5.271
Distant Passion	5.75	5.41	6.32	5.18	4.78	4.44	5.64	5.73	4.1	5.261
Elusive	5.95	4.69	5.73	5.09	5.07	4.7	5.8	5.73	4.26	5.224



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Technical Committee Report

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

Continuous Improvement

Most of us have had the after-race experience of asking the mystery question, “What happened out there?” It is always fascinating how boats—that when side-by-side are moving at very nearly the same speed—can end up half a mile apart at the end of a four-mile race. In an effort to improve overall performance and competitiveness (and especially enjoyment), the Class Executive Committee made the decision to make Kattack race tracking and analysis available to all J/105 owners in a trial program for 2011. This is seen as a benefit to the owners in two ways: the marketing of the Class, and to further improve the competitive level within the Class.

The Class has purchased (through a generous donation from Class President Bernie Girod) an annual license for the Kattack software. Used in conjunction with cell phone-based tracking hardware, this allows both live tracking and replay capabilities. The tracking devices can be rented or purchased from Kattack, as Fleet 6 has decided to do this year. It is also possible to rent tracking devices for a single event as was done at Key West Race Week this year. The Class is also working to get applications developed for iPhone and Android devices that will allow owners to do the tracking on their own phones at no additional cost. The thinking is that every boat will have one or the other aboard via the owner or one of the crew. One of the keys to successful race tracking is to have as much participation as possible, as this gives a truer picture of what went on and why decisions were made.

What does Kattack do?

Kattack Live operates by capturing GPS coordinates every five seconds and sending that data to a web address along with a time stamp and boat identification. The software on the website sorts out where this data belongs, displays this for live viewers, and saves it to a replay file for each boat in that event. The player translates this data into a time-coordinated display. Management requires a process Kattack calls “publishing,” which is what the software license really

buys. This is where the lines and marks are located and the course defined so the playback makes sense. It also allows extraneous data to be eliminated so we don’t have to watch boats on a lunch break. Publishing also crunches all the data to provide the extensive performance analysis reports.

What do we gain from Kattack?

Live play allows those who are not at an event to become virtual spectators. Whether this is Class members or the family back home, it is a chance to be in on the action. Playback is a big value to the competitors, as they can go back and analyze what happened. Was my start really that bad? Why did the boats on the right do so well? Kattack will answer these questions.

The analysis features in the playback version are informative. Some of the better ones are outlined below:

Position: This shows what place each boat was in at the end of each leg. This really helps hone in on when and where things went right and wrong.

Distance Sailed: Generally the boat that sails the least distance wins. If that boat doesn’t win, then someone else was a lot faster. This feature shows where you got on the wrong phase and what the other boats did to sail the shorter course.

Leg Speed: This reveals how fast the boats sailed each of the legs. Distance divided by speed gives time so this helps break down the tradeoff between pointing and footing. Sailing the shortest distance due to pointing versus the lower and faster tradeoff. You will see both types in every race.

One thing that is currently not available but would be useful is instantaneous course heading, as this would allow easier visualization of what the wind was doing relative to the course. This can be inferred from the “phase plot,” but not as easily as seeing the number as it happens. Right now, only speed is available by hovering the cursor over a boat during playback mode.

Some things learned

A lot can be learned by focusing on certain aspects of the race and looking at how that factored into the final result. For example, starts were an interesting study at Key West Race Week. Savasana looked to play it safe, at least from 1,000 miles away. Brian Keane didn't try to win the ends, was not the first boat off the line in most races, was in the first row on every start, had no OCS's, and won the regatta. In his "Boat of the Day" interview, he talked about clear air and sailing his own race. The Kattack playback bears this out. It is interesting how he made decisions that put him in position to follow those simple tenants.

Some other boats were considerably more aggressive, winning the favored end, some OCS, getting spun out on the favored end, and so forth. One boat in particular could possibly have won the regatta with a more conservative plan for the starts. This is one of those things that ends up being boom or bust. The playbacks clearly show that any kind of start is better than OCS because being at the back of a large fleet doesn't leave a lot of options. It appears that in a five-day regatta, consistency wins out over boom or bust.

Expanding the learning curve

A great adjunct to Kattack is the photo sites such as Tim Wilkes' Key West Race Week pages. It is worthwhile to look at the photos and compare performance data from Kattack to how the boat is set up. The Key West photos from this year show a lot more uniformity in the setups than was apparent from a couple of years ago. Clearly the Class is pulling together in this regard. Some apparent differences can be seen in jib twist (probably due to lead position) and mast pre-bend. Jib and main halyards appeared to be very consistent through the fleet. The photographers aren't trying to optimize our performance analysis so it takes some creative deduction to make sense of it. Various photographers prefer different angles for their shots, so Photo Boat (for example) will give a different perspective in comparison to Tim Wilkes. There is a lot to be learned by looking at various angles of a fast boat and burning that image into memory. Likewise, a good deal can be learned by looking at the not-so-fast and trying to decipher why that is.



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Verve Cup.....2nd
Macinac Sec.....3rd

MORE RESULTS
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Miles River Race..2,3,4
Solomons Island Race..1st
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Photo courtesy of: Photo Boat

Cheap Thrills

By Bernie Girod, J/105 Class President

Part Two

In the 2010 Spring Newsletter, I wrote about five inexpensive ways to improve mast tuning, mainsheet block travel, pole extension, spinnaker halyard handling and secure winch handles. Here are five additional inexpensive ideas for you to consider:

1. FOOT BLOCKS:

Most owners with tiller boats have figured out a way to brace themselves when the breeze is up. It usually involves some kind of foot support for the driver and sometimes for the mainsheet trimmer. Boats equipped with a wheel often lack such support, and the driver and mainsheet trimmer often compete for whatever foothold they can find. It's a bit easier for the driver since he/she can use the binnacle for partial support, but you need more support to be comfortable when the boat is heeled over. An easy and inexpensive solution is to bolt four pieces of half-inch star-board (West Marine plastic "wood") in the cockpit (photo 1). Mine are 8" wide, 12" high and stick up 2" above the cockpit seat. I have provided substantial overlap on the forward piece, which is bolted to the lip of the lazarette cover in order to place the load on the starboard piece instead of the thin front lip of the lazarette cover. I also added a piece of starboard on the inside to reinforce the system (photo 2).

2. FOOT PADS:

When the boat is heeled over and bouncing around, it is difficult for the driver to get to the backstay without slipping and sliding. We had one incident in Long Beach where the driver slipped, lost control of the boat and hit two other boats. I have added self-adhesive rubber footpads aft of the wheel and a couple of plastic strips to provide support (photo 3). The self-adhesive foot pads are available at West Marine in a variety of sizes. Mine are undersized at 5"x11". I will replace them with 11"x14" pads. I add some 3M 5400 to the adhesive to prevent them from coming loose or sliding around.



Photo 1



Photo 3



Photo 2

3. BACKSTAY TRAVEL MARKS:

Speaking of the backstay, it is useful to measure the amount of backstay applied—most of you already do this. We tape a batten to the cylinder and glue an 8" flexible ruler to the batten. The ruler is positioned at zero when the backstay is fully eased. Our first red mark is set at the point where the slack is just removed from the backstay. Thereafter, we place a red mark every 2" (photo 4). Our rule of thumb is that we tighten the backstay 2" for every five knot increase in wind speed.

4. STARBOARD ROPE CLUTCH:

The starboard rope clutch is not in line with the cabintop winch. On my boat, the mainsheet halyard goes through that clutch. We keep the mainsheet halyard on the winch upwind when it's blowing hard to prevent the halyard from slipping through the clutch. When the halyard is under load and on the winch, it exerts substantial side force on the clutch. After tearing up two expensive Lewmar clutches, I decided to correct the problem by moving it up $\frac{1}{2}$ " and outboard about $1\frac{1}{4}$ ". I inserted a $\frac{1}{2}$ " piece of starboard under the clutch (3"x6.5"). The former outboard holes can be used as the new inboard holes, so you only have to drill two new outboard holes (photos 5 & 6). The alignment in the new position is not perfect but it is well within the tolerances of the clutch. Of course, there are ways of reducing or eliminating slippage by beefing up the portion of the halyard which goes through the clutch, or by looping the tail of the halyard back to the front of the clutch and tying two half-hitches. But it will not correct the fundamental issue of misalignment under load. The alignment in the new position is not perfect, but it is well within the tolerances of the clutch.



Photo 4



Photo 5



Photo 6

5. BILGE CHECK VALVE:

The hose from the bilge pump goes straight up the bilge before it discharges. Thus the water in the upward facing portion of the hose never drains out but drains back into the bilge. We fried a bilge pump and drained the battery when our system went into a permanent cycle, draining the water out only to have the water come back into the bilge and triggering the pump again. A simple and inexpensive fix is to add a one-way check valve right after the bilge pump (photo 7). The check valve prevents the water from draining back into the bilge and triggering the pump.

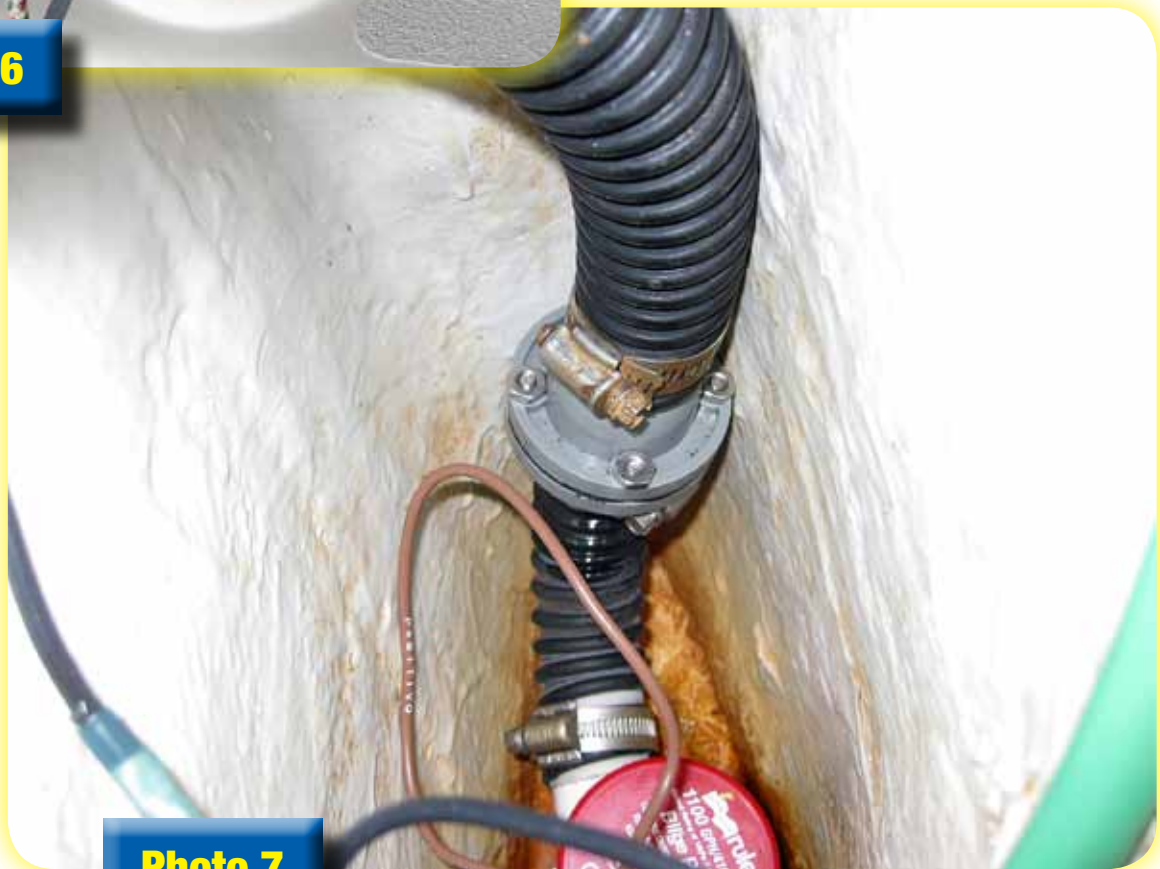


Photo 7

Sail Trim

By Nick Turney, North Sails

The J/105 has a very simple sail plan. A low aspect mainsail, small headsail and asymmetrical spinnaker make the boat rather easy to sail. This article will focus on the dynamics of sail for the J/105. We will focus on each sail individually on how to achieve the best performance.

Mainsail/Main Sheet

The first and most important element of mainsail trim to set is the twist. Twist is primarily controlled by the mainsheet. A tight sheet reduces twist, and a loose sheet allows for more twist. Less twist lets the boat point higher, while more twist lets the boat accelerate more easily. IMPORTANT—in order to point high, you must be going fast first! By going fast, you increase water flow over the keel, which creates more lift. If you try to point before you are going fast, not enough lift will be generated by the keel and there will be too much leeway making the boat actually go sideways. The general rule of thumb for the median setting is to trim the sheet so that the top batten is parallel to the boom. At this setting, the tell tale at the top batten will stall about 50% of the time in moderate air. When you need to accelerate, ease the sheet slightly while bearing off. Once you are up to full speed, trim in to the median setting or slightly tighter and start to head up. The proper amount of twist is dramatically affected by sea state. In flat water, where it is easy to keep constant boat speed, you can sail with less twist. In waves or chop, the boat is in a constant state of accelerating and decelerating and more twist is required in order to maintain speed.

Traveler

The traveler controls the boom's angle compared to the centerline of the boat, which is described as the angle of attack. With the traveler set in a higher position on the track, you are creating a narrow angle of attack which is used for pointing. With the traveler set in a lower position, you are creating a wider angle of attack which is used for acceleration and depowering the boat. You want to carry the traveler as high as possible without making the boat heel too

much. In light to moderate winds, the boom should be on centerline or slightly above. In very light winds when you are twisting the main, setting the boom above centerline will put the mid leech and lower third of the sail on centerline which is critical. As the breeze builds, the traveler should be played aggressively to control the angle of heel and overall balance of the boat.

Main Sheet vs. Traveler

One of the more difficult things to determine is how to depower the main in moderate to heavy conditions. As we have learned, you can depower the main by either twisting the main by easing the sheet or letting the traveler down. The technique used should be determined by sea state, which will affect how the helmsman has to steer the boat. In flat water, the helmsman should be able to use very subtle steering changes. Hours of on-the-water testing has shown us that depowering by lowering the traveler and keeping a tight leech produces the best VMG. You can point high in flat water without slowing down, and the tight leech will help with pointing. In testing, I have found that twisting the main leech in flat water and moderate air only sacrifices height. With this condition, the traveler should be played to maintain the proper amount of heel. In waves and choppy conditions, the opposite has proven to be faster. In waves and chop, the helmsman has to be more aggressive driving. Keeping the traveler high makes for a wider range of steering using the mainsheet to control balance of the boat.

Cunningham

The cunningham controls luff tension of the mainsail. By tensioning the luff or applying cunningham, you move the position of the draft. By moving the draft forward, you are making the sail flatter and twisting the leech open. In light winds, the cunningham should be slack; as the breeze builds, apply cunningham to remove wrinkles in the luff as you would apply backstay.

Vang

In about 12 knots of breeze, begin to pull the vang on to induce lower mast bend. By bending the lower third of the mast, you begin to flatten out the lower portion of the main. As the breeze builds, keep pulling on vang to flatten out the sail and depower keeping the boat balanced. Be sure to ease the vang off before easing the main sheet to avoid breaking your boom!

Outhaul

The outhaul controls shape in the lower third of the sail. In light conditions, start with the outhaul eased about 1-2 inches, progressively pulling it on as the breeze builds to a point in about 15 knots when you can't pull any harder.

Jib Trim

The J/105 jib is a very tough sail for us sailmakers to design. With the Class Rules only allowing one headsail, this jib has to perform well in all conditions. To change the shape in the headsail, you must rely on your controls—halyard, sheet and lead.

Halyard: The jib halyard is the most important control for shaping the sail. A tighter halyard will produce more draft forward, a rounded entry shape with less overall depth in the sail. A looser halyard will produce more draft aft, a finer entry shape with more overall depth. As a general rule, setting the halyard should be tensioned to just barely remove the wrinkles in the luff. In lighter winds, the wrinkles should be visible; as the breeze builds, the halyard should be applied to remove the wrinkles to a point in heavy winds when you would pull the halyard on 1-3 inches past wrinkles. Older sails will require more halyard tension. As a sail ages, the draft will move aft requiring more halyard tension.

Jib Sheet: Once the draft is set, the sheet becomes an important control. The general rule is to trim the J/105 jib as hard as possible without slowing the boat down. The jib sheet needs to be constantly adjusted just like the mainsheet. When a puff hits, the leech of the sail will naturally twist. This will require more trim on. When the boat is becoming overpowered as a puff hits, an ease will be necessary to maintain balance. You should have tape marks on your spreaders at 3 inches, 6 inches and 9 inches in from the tip. In light air, trim the jib so the leech is at the spreader tip. In moderate winds, trim the jib between the 3-9 inch marks, constantly adjusting the sheet for balance and

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speed. In heavy conditions, keep the sheet eased from the tip to the 3 inch mark. For a quick reference, mark your sheets near the winch for each of your spreader marks. In light to moderate conditions, trim off your cabin top winches as that brings the sail inboard closer to centerline. In heavy conditions, move back to your primary winches to open the slot.

Jib Lead: The jib lead is used to control the top-to-bottom shape of the jib. Once the jib is trimmed to your appropriate mark on your spreader, adjust the lead to shape the top and bottom of the sail. Moving the lead forward will close the leech and make the foot rounder; moving the lead aft will flatten the lower sections and twist the leech. The median jib lead position should be about 9 inches aft of the chain plate or just forward of the cabin window. In light air, move the lead forward up to 3 holes so the foot is just about to touch the lifelines. As the breeze builds, move the lead aft up to 2 holes from your median setting to flatten the foot.

Spinnaker Trim

Sailing the J/105 downwind is a little more difficult. Paying attention to all the smaller details can make a huge difference in speed and angle. The key is good communication between the skipper and trimmer. The trimmer should be constantly talking about pressure in the sail. In light air, you must sail tighter angles for best VMG. The crew should be forward and to leeward and as low as possible, ideally down below. Adjust the tack line between all the way on and eased 12 inches. Pay close attention to the leech profile of the main and the spinnaker. Try to match the profile by easing vang. Keep the mainsheet tighter than usual to give the skipper some feel in the helm so he can drive down when needed. In moderate winds, the lower you can sail the better you will do. Keep the tack line eased between 1-2 feet. Once the boat feels pressured up, drive down as low as possible and shift the crew to windward to help the spinnaker rotate to weather. The vang should be set so the top batten is parallel to the boom. In over 12 knots of breeze, the boat will be well pressured up. At this point, you want to sail as low as possible all the time. Keep the tack line eased 2-3 feet and keep the sheet well eased to promote windward rotation.

Main Sail Controls

- Main Sheet - controls leech tension, lateral movement of sail
- Outhaul - controls depth in the lower section of the sail, outhaul off closes lower leech, outhaul on opens lower leech
- Cunningham - controls draft position, cunningham on opens upper leech, cunningham off closes upper leech
- Vang - controls leech tension going downwind, induces mast bend going upwind and maintains leech tension when easing the main sheet

Controls	Light	Moderate	Heavy
Outhaul	Tight	Tight	Tight
Cunningham	Loose	+50%, remove wrinkles	+100%, open upper leech
Vang	Loose	Snug/remove slack	Tight/firm
Backstay	Loose	Keep boat flat/balance helm	Tight/balance boat and helm
Traveler	Boom to CL	Balance boat, between max up and middle	No lower than middle, balance boat
Sheet Tension	Eased so top batten is slightly open	Top batten parallel to boom, balance boat	Eased to balance boat, keep top batten open

Jib Controls

- Jib Halyard - controls luff tension, moves draft fore and aft, acts like a cunningham
- Jib Lead - controls depth and twist of the sail, moving lead aft flattens the lower section and opens (twists) the upper section, lead forward adds depth to the lower section and removes twist from upper section
- Jib Sheet - controls angle of attack and lateral position of the sail

Controls	Light	Moderate	Heavy
Jib Halyard	Loose, slight wrinkles in luff	Snug, just tight enough to remove wrinkles	Tight, no wrinkles
Jib Lead	Forward to add depth in sail, lower tell tales breaking first, or even	Aft a slight amount, keep boat balanced, tell tales breaking even	Aft, upper tell tales breaking first, keep boat balanced
Jib Sheet	Eased to open slot	Tight, sail as close to centerline as possible	Eased to balance boat, trim when possible

Spinnaker Controls

- Halyard - controls height of sail and distance of sail forward
- Tack line - controls height of the sail and ability to rock the sail to windward, raising the tack opens the luff and closes leech, lowering the tack tightens luff and twists leech
- Twings - keeps pole down, controls tension on leech, twings down tightens leech and depowers sail

Controls	Light	Moderate	Heavy
Halyard	Tight to mast, max hoist	Eased off mast 1-2"	Eased off mast 3-4"
Tack Line	Lower to stabilize sail, tighter luff, and open leech	Adjust to rock sail to windward, raise 1-2' or until tack starts to fall to leeward	Raise 2-3' or more, rock sail to windward and maintain leech tension
Twings	Off, only use to stabilize the sail	Adjust to maintain leech tension, match slot with mainsail	Twing on 50% to maintain leech tension and stabilize the sail



Rigging Improvements

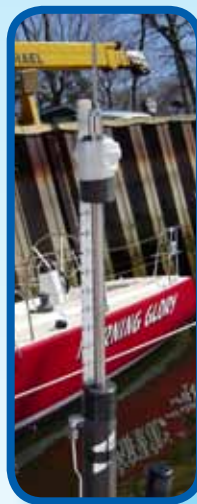
By Kerry Klingler, Quantum Sails

When looking over your boat for a new racing season, try to make sailing easier and faster. Look at 12 simple details that make a difference:

J[®]
105



1. Lace the bow between the lace lines and the deck forward of the mast. This helps keep sails on board during genoa and spinnaker takedowns.



2. Calibrate outhaul, backstay adjuster, for easy repeatable trim.

Rigging Improvements



3. Masthead fly with calibrated arms for fast easy wind checks by skipper and crew.



4. Reference marks for easy jib trim. Also note the lace lines on the V of the shrouds. This helps prevent the spinnaker from fowling in the V during a spinnaker takedown.



5. Tylaska shackle added to tack line and spinnaker sheets for fast easy spinnaker setup.



6. Instruments added at an easy location for the entire crew to see and use.

Rigging Improvements



7. Replace screw shackles with snap shackles for fast easy sail changes on roller furling headstays.



8. Add a tuff luff prefeeder to headstay for fast easy sail changes. Lace the prefeeder tight to the headstay for good alignment to the feeder on the system.



9. Add line bags to help keep the boat tidy and control lines accessible for use.



10. Split the mainsheet fine tune from the mainsheet course tune. This prevents the two controls from tangling, and makes them easier to work.

Rigging Improvements



11. Increase the power of the outhaul to 12:1. By Class Rules, this is legal and makes adjustment of the outhaul far easier.

12. Add a snap shackle to the stanchion base to hold the spinnaker halyard out of the way when the spinnaker is down.



13. Lead the cunningham aft to stopper on the starboard side next to the spinnaker halyard. Keep the purchase simple with 3:1 under the gooseneck, combined with a 2:1 purchase above the gooseneck. Use the gooseneck fair leads to keep the purchase in line and neat. This allows crew in the cockpit to easily adjust the cunningham.





2011 J/105 North American Championship

By Doug Morgan

With approximately five months to go until the 2011 J/105 North American Championship, it's never too early to plan for a successful and fun regatta. Although the snow has been heavy in the Northeast and elsewhere, the J/105 North American Championship Regatta Committee has been racing to make plans for this upcoming event. If you don't know already, the dates are Wednesday, August 10 to Sunday, August 14.

The full version of the event website can be viewed at www.j105northamericans.com, which was recently updated with new content and easier navigation. We want everyone to have the best and easiest experience attending this year's North Americans, and we have provided information online to help plan your travel and regatta details. Currently there is a section for: charter boats, housing, boatyard logistics, crew matching, event schedule, trucking your J/105, entry list, online registration and much more.

With regard to the schedule, we want to make sure everyone is aware that the racing will take place from Thursday, August 11 to Sunday, August 14, providing four full days of racing with Wednesday, August 10 for measurement, registration and practice races. So the crew can arrive Wednesday evening or Thursday morning to weigh-in and join the fun.

We already have a dozen boats registered for this event. A strong showing so far from the local fleet has produced nine local entrants of the expected 25+ from Maine, New Hampshire and Massachusetts. *Rock & Roll* hailing from Santa Barbara, CA so far will be the longest traveled boat. Both *Bat IV* and *Java* will be making the journey from Maryland to attend this annual classic competition as well. Register online now to take advantage of the early bird discount!

Calendar

Dates	Event	Contact
March 18-20, 2011	San Diego NOOD San Diego Yacht Club San Diego, CA	Valerie Mey 401-845-4412
April 14-17, 2011	Charleston Race Week Charleston Harbor Resort & Marina Mt. Pleasant, SC	Daniel Havens 843-722-1030, x18
April 29-May 1, 2011	Annapolis NOOD Annapolis Yacht Club Annapolis, MD	Valerie Mey 401-845-4412
May 1-6, 2011	Bermuda International Invitational Race Week Royal Bermuda Yacht Club Hamilton, Bermuda	Audrey Pope 441-295-2214
May 20-22, 2011	Seattle NOOD Seattle Yacht Club and Corinthian Yacht Club Seattle, WA	Valerie Mey 401-845-4412
June 3-5, 2011	Detroit NOOD Bayview Yacht Club Detroit, MI	Valerie Mey 401-845-4412
June 10-12, 2011	Chicago NOOD Chicago Yacht Club Chicago, IL	Valerie Mey 401-845-4412
June 19-24, 2011	Block Island Race Week Race Headquarters: The Oar Restaurant on Jobs Hill Block Island, RI	Dick Neville
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 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 15-18, 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



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PHOTO BY WALTER COOPER

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