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SUMMER 2005

TANK TALK

THE MAGAZINE OF THE 505 CLASS, AMERICAN SECTION



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The Future of the CB

Mastering the Madness. Rushing towards the leeward gate at the LightSurf® International 505 World Championship in Santa Cruz, August 2004.

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TANK TALK

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Message from the President

By the time you read this, most of you will have gotten the cover off your boat and will have been out for a spin around the harbor, and probably like me, you had a big stupid grin on your face while doing it. Over the winter, your class officers have been hard at work trying to improve our events, and our recruiting strategy. Over the last decade, a re-occurring theme seems to be recruitment. We love the 505, and we know it's one of the best boats ever conceived, so it's only natural to want to share that joy with others. With so many awful boats out there sailing around, I sometimes wonder why everyone isn't sailing a 505. For many would-be 505 sailors, the answer is that they don't know what they are missing. I have never seen the boat not sell itself when we put a new sailor in it, so we must do a better job of introducing the boat to others.

I am convinced that the most successful recruiting happens at the local level. You know who the most talented sailors are in your club or area. You also know who has "the right stuff" to sail 505's. I want to appeal to you to go out and get these people interested in the class. Many of you probably have someone already in mind. Great, the American Section wants to help you get them on the water. The most successful recruiters over the years have been Ali Meller, Paul VonGrey, and Howie Hamlin. Be sure to ask them for recruiting tips.

Recruiting can be difficult in a niche boat like the 505, but we are taking several steps to assist you in your efforts. Paul VonGrey has brought a container of new and affordable boats into the country from Australia. Ralph Silverman and Andrew Buttner are our new recruiters, and they will be working with the fleet captains and regional coordinators to help match people with boats. J. Berquist and Doug Hagan have redesigned the web site to make it more interactive, easier to navigate, and more aesthetically pleasing. Your mission, should you chose to accept it, is to choose one person that you think should be in the class and go recruit them! Those that do will be rewarded with another boat in their fleet.

The other half of our recruiting effort is aimed toward getting new young blood into the class. With an average age holding in the middle 40's, the class needs to start looking for the sailors of tomorrow. Carl Smit has been working on a project to introduce these young sailors to our class. Doug Hagan organized a recruiting effort at Pacific Sail Expo this year. It was a wonderful presentation and not only showed the boat to the public, but also targeted the high school sailors that were also there sailing a regatta. Many believe that it is a waste to try to attract young sailors. I disagree! If we can show these impressionable minds how much fun a 505 and dinghy sailing is, then I am convinced that they will want to sail 505's when they grow up.

I also want to inform you all that this is Jesse Falsone's last issue as editor of *Tank Talk*. He has been the editor for longer than I can remember and has produced some very nice issues. Jesse has put a lot of time into *TT* and on behalf of the class, I would like to thank him for all his time. Mike Holt and Dave Shelton have volunteered to take the reigns, and we will all be looking forward to their first issue.

Finally, and most importantly, I want to tell you how excited I am for this years North Americans! Jeff Boyd is already hard at work organizing the event and looking for a title sponsor. For those of you that have never been to Kingston, put it on your schedule for next year. Good weather, great breeze, awesome town and fresh water. If you have been to Kingston, you know what I am talking about. Did I mention that it is a less than five minute sail to the starting line? Macy Nelson has been working to organize a West Coast container. If you're interested, inform Macy or Mike Holt. The container will be both inexpensive and quick. With only a five-day transit time, you'll have your boats for most of the summer. So mark off August 3-7 in your calendars and plan to come to Kingston!

Tyler

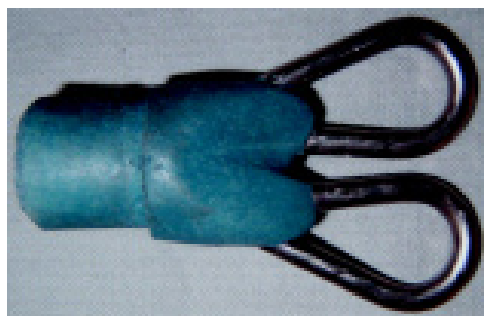
Editors Note

Finito! Grazie Sue! Arrivederci.

SHORT TACKS

Spinning Up Forks

Sometimes life brings you little surprises where the next thing you know, some big mouth like Ali Meller touts something you did & the whole 505 world wants to know all about it. It started with a handful of custom made prototypes spun up on a 1948 vintage Logan lathe shared with East Coast friends. When the inquiries came pouring in, it evolved to a micro production line of building spin forks that have been shipped from Finland to the U.S. West coast. The trick was to find a process to make them strong and reasonably priced. With the help of friends in the plastics business, molds were made from the machined models. Pre-formed rods are placed in the mold and high strength urethane resin is poured in. The molds are spun in a roto-cast machine (like a centrifuge) until the resin hardens. They just get better & better with the great feedback from 505 sailors worldwide who have tried them. It's a VERY cool thing to have an international message board that communicates so effectively. Can't beat this class. Forks are still available. MRANG@ATT.NET P.S. Thanks Ali!



Model 150



Model 250

Fairey Tail

When the 2005 505 Worlds organizers put out an email asking for a scrap boat from which to hack a transom from, Mark Angliss offered to build from scratch the "Fairey Tail" - a replica of his Fairey Marine 505 transom. The actual Fairey Marine boat is far from splashing down, but this transom will find it's way across the ocean to Warnemünde, Germany this summer, where it will be signed by some 170 505 teams and presented to the host club on behalf of the association. This is a fitting tribute to the 50th anniversary of our esteemed championship.



Advance Notice

2005 North American Championships

August 3rd to August 7th.

Hosted by Kingston Yacht Club

- Entry Fee: \$200 (\$170 US), cheques made Payable to "Kingston 505 Fleet"
- Entries accompanied with the full Entry Fees must be received by June 20, 2005 or the entry fee becomes \$250 (\$205 US). Credit card payment will be available
- Housing: contact Florence Boyd at jboyd13@cogeco.ca
- Entry forms and more detailed Notice of Race on the net.

Pegasus News

Philippe Kahn and Pegasus Racing continue to have a positive impact on the 505 class following the LightSurf sponsorship of the 2004 505 World Championship. Pegasus has been running weekly training sessions in Santa Cruz open to all 505 sailors, run by professional sailors and coaches. Philippe is keen to fit sailing into his very busy schedule, despite the launch of his new company, FullPower (www.fullpower.com).

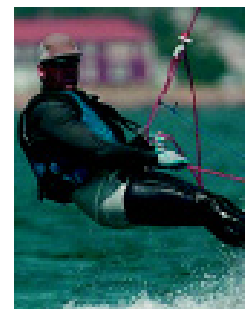


Meanwhile, Back East

Macy Nelson and Tyler Moore have energized some weekly training on the East Coast since last fall, with sessions in Hampton, VA and Galesville, MD. Short course racing, as has been de rigueur, has been emphasized. Coach boats have been on the water, and the sessions have been open to all. Contact Macy Nelson (gmacynelson@gmacynelson.com) for information.

Out of Retirement

Most professional boxers retire longer than Peter Alarie before making a comeback. After announcing his farewell tour last season, Peter is back on the wire for a one Hasso Platner of Germany. Hasso is a keen competitor, and there's no question that Peter will help him get faster around the course. When not crewing for Hasso, Peter has been busy taking a fast-track German language course.





UPCOMING 505 EVENTS

The staff of Tank Talk would like to extend it's support to all hulls left on the hard. Have hope, there are plenty of opportunities ahead. Where would you like to go?

July has activity in the hills at the **Firecracker** on Union Reservoir the 2nd or the **Aspen Open**, July 16-17. **SSA** is hosting on 5th & 6th and **Falmouth** wants boats the weekend of the 9th. There's the party after SoCal's **Bay to Bay** and St. Francis has extended the invite for it's **Bay Challenge**, July 16 & 17. Venerable Hyannis Yacht Club has the **Region 1 Champs**, 29 thru 31.

During the dog days **Kingston** has the NA's again, Aug. 3-7 and then take the polar route to **Warnemünde, Germany** for the Worlds. Staying home? Try rarified air sailing at the **Dillion Open**, Aug 6-7 or bake on the beach at **Mission Bay** the 20th and 21st.

The Boys of Summer are jogging to the finish, the NFL's in training camp and sailing's still happening with either **Indian Summer** at Mission Bay or **Santa Cruz**, Sept. 3, or visit Big Mac for the **Nebraska Governors Cup**, Sept. 3-4. Mid-month **Hampton Yacht Club** is calling as well as **Cherry Creek, CO**. The Northwest can visit **Bellingham One Design**, it's usually in September.

As the ball rotates towards Turkey Day, think the **Bluenose** at Kits, BC or the **Mid-Atlantic Champs** are Oct. 8-9 in Rye. The **ECC's** are on SSA's plate the 28th-30th. **St. Francis** has another scheduled on 29-30 and weekends on **Mission Bay** in November are full.

For more information about these and other events go to: www.int505.org/usa/events/regs.htm.

New ISAF President

Göran Petersson, the new ISAF President, is a former Swedish 505 National Champion. Look for President Petersson to make an appearance at the 50th 505 World Championship, along with other sailing dignitaries.

Trapped by New Trapeze Rules?

A new rule taking effect in January of 2006 was widely thought to require all trapeze harnesses to have a means to quickly release the hook from the harness. Some manufacturers, including Bethwaite, quickly developed a hook quick release system to conform to the new rule. However, it appears that ISAF is having to rethink the amendment as they recently asked all classes and MNAs to supply them with details of any trapeze entrapment incidents. The official 505 class response to ISAF stated that entrapment by trapeze equipment was not a problem in the 505, and that a quick release system for the hook might prove to be a larger safety hazard after the pin is pulled and cannot be replaced readily on the water, leaving the boat unstable and difficult to sail without a crew on the wire. More clarification on this proposed rule is forthcoming from ISAF.

RWO's Entry -
The QRH



Another 505 Sailor Recognized

Morgan Larson was nominated by last year for the Rolex Yachtsman of the Year award in part for his victories in the 2004 505 North American and World Championships. While he was beat out for the award by Olympic Gold Medalists, Paul Forster and Kevin Burnam, Larson was honored by the nomination, and happy to represent the 505 class, which is recognized for its high level of competition. Look for Larson to launch another Olympic 49er campaign after his convincing win at the Miami OCR earlier this year.



“D” is for Discontinued

The once popular “D” section mast is being discontinued, in favor of the slightly stiffer Cumulus. The Cumulus, which is approximately 17% stiffer athwartships than the “D”, has been increasingly popular in such classes as the 505, 470, 420, and GP 14. According to Seldén Performance Sales Manager, Richard Gibson, “We have had to make the difficult decision to discontinue the section, but in the knowledge that the Cumulus provides a very suitable alternative for the 505 class, especially with the new rule allowing larger spinnakers.”

Paternity Leave

Another top 505 crew, Andy Zinn, has apparently taken leave of major 505 competition for this season. Congratulations to Andy and wife on the birth of their son, Max!

Notes from the Secretary/Treasurer

Thanks to everyone who responded, I really enjoyed your comments and I was impressed by how some of the chips fell.

Here's the bad news: I'm just like you, the average Joe 505er, at least that's what my hand waving and non-statistical analysis. The typical 505 sailor has been in the class for 0-5 years, plans to sail in a championship regatta and is on average around 40 years old.

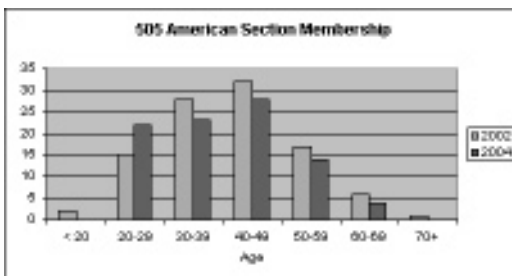
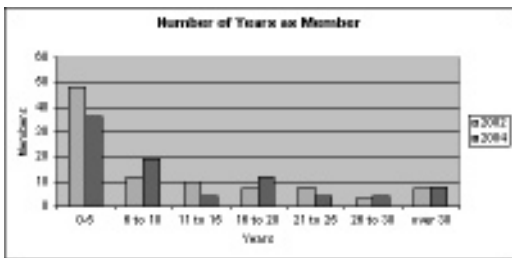
Surprisingly the results of the 2004 survey were very similar, and I don't hesitate to say within error! (and there's plenty of that!) with the 2002 results. So that means that either we haven't changed much or the same people are returning over and over.

I was most impressed by the 8 respondents who have been in the class for over 30 years, or at least claiming to be in the class for over 30 years! WOW! I'd really like to hear a *Tank Talk* article from some of these people who can tell some "Back in the Day Stories"! By the way, you guys really are old!

The other thing that caught my eye was that over one third of the respondents have held a local, regional or class office. Almost everyone was willing to write a *Tank Talk* article. I'm sure Jesse and now Mike Holt will appreciate the good intentions!

The one question not on the survey and probably the most important questions, is how many people did you take for a ride on a 505 this year? I know that many people around the country spend a bunch of time thinking about and acting on promoting and recruiting and helping to grow the fleet. I can tell you, that promoting the 505 is on the forefront of all the discussions that I have had with Tyler (and Aaron before him) and Carl. I very optimistic that we're going to put some of these plans in action during 2005! The reasons for sailing a 505 differ but they all boil down to the same goal, let's go out there and have some fun. So in 2005, let's all make an added effort to share the fun and introduce the boat to potential 505'ers.

Doug USA8554 — (Team Panic with Stuart Park)



SURVEY RESULTS

	2004	2002	1998
YEARS AS CLASS MEMBER:			
0-5	36	48	
6-10	19	12	
11-15	4	10	
16-20	12	7	
21-25	4	8	
26-30	4	3	
over 30	8	7	
MEMBERSHIP:			
Full	70		
Associate	2		
Full <35	1		
Family	10		
Honorary	1		
AGE:			
< 20		2	
20-29	10	15	22
30-39	28	28	23
40-49	31	32	28
50-59	16	17	14
60-69	5	6	4
70+		1	
Totals	90	101	91
Male	85	90	
Female	5	4	
Married	60	70	
Single	18	27	
OWNERSHIP			
Own	63	67	
Co-own	6	14	
Don't Own	15	17	
New	19	19	
Used	47	66	
Built		1	
REGATTA'S SAILED PER YEAR:			
None	5	10	
1 to 5	30	29	
6 to 10	31	29	
10+	19	29	
PLAN TO SAIL IN REGATTA			
Yes	67	69	
No	13	18	
Maybe	4	10	
HELD AN OFFICE			
Yes	32	33	
No	50	67	
TANK TALK			
Yes	59	65	
No	5	14	
Maybe	21	8	
LEAVE DUE TO SPINNAKER RULES:			
Yes	2		
No	72		
RIDES ON YOUR 505!			
Zero	35		
1 to 3	24		
4 to 6	13		
7 to 9	2		
10+	4		
Dog	1		

THE HOOK AND GO TACK

Faster Crew Speeds Across The Boat

By Jesse Falsone, Team CSC Sailing, USA 8629

Sailing can truly be a game of inches, and gaining that valuable distance can be illusive for even the most seasoned teams against stiff competition. The Team Tuesday guys have dissected many elements of their technique over years of training to hone in on the best possible boat handling moves. Tacking technique is often taken for granted by many sailors, especially guys like myself with ten years in the front of a 505. There's an art to getting from wire to wire going through the eye of the wind in the least amount of time, and with the smoothest possible motion. It was only this year that I learned my tacking method could be dramatically improved using the "Hook and Go" method. Besides, Mike Martin gave me no choice but to learn it!

Back in 2000, Peter Alarie had learned this technique while sailing with Howie Hamlin. Peter was skeptical at first - after all he'd already won numerous championships using the tacking method of swinging out on the handle. Howie urged him to use the hook and go method, and after some practice, Peter was a believer. "I feel that the hook and go method has prolonged my 505 career, as I was having joint pain in my damaged left elbow from the strains of 'normal' tacking. Learning to hook in first was a great revelation, and is now the only technique I teach to junior sailors." This year, Howie is teaching another old dog this new trick. Cam Lewis has won the world championship twice, and at the ripe old age of 49, is now learning how to hook and go. A modest Lewis explains, "In the front of the boat at my age, my skills are just what they are - very average. I just concentrate on the basics; getting to the other side of the boat quickly, grabbing the new sheet, hooking in, and getting out as fast as I can, trimming the jib as I go."

According to Alarie, the biggest selling point for the Hook and Go is that you must use the same technique downwind going wire-to-wire in a jibe because you must hold the spinnaker sheet in one hand, leaving no spare hand to hook in with if you swing out on the wire first.

The Hook and Go method is performed in full-power or de-powered conditions, when the trapeze ring is lower, and speed across the boat is of utmost importance. This method is not appropriate for marginal trapeze conditions when the hook height is higher, and speed across the boat is not crucial because the boat doesn't load up immediately after a tack. This hook and go method, as described, assumes that the starboard jib sheet is run in front of the port jib sheet, with both sheets dead-ended to the trapeze handle or doughnut. This detail will become important in the description of the technique.

Ready to Tack

The Hook and Go technique begins just like any other, with the crew simultaneously releasing the jib sheet from the cleat with the aft hand (but keeping tension on the sheet until actually moving inside the boat), and unhooking from the wire by supporting your weight with the forward hand on the handle. From here, the crew is ready to move quickly across the boat. At this stage, timing your move correctly is imperative. The crew should lead the driver across the boat to maintain trim and keep the boat flat through the maneuver. If the crew is late in initiating the move, the boat will heel up quickly on the new tack, making it very difficult to hook and go.

The Crucial Step

As with any tacking method, the key to fast egress are the initial steps into the boat. The front foot steps in, and the back foot follows, but must go completely over the centerboard trunk from the rail. By making this step with the back foot, you are rotating your hips so that you are now facing forward as you come into the boat. You are straddling the centerboard trunk, knees bent and ducking the boom. At this stage, the boat will be near head-to-wind, and slightly heeled. Gravity is your friend because it's always easier to step down into the boat when it is slightly heeled. This slight heel also gives you more time before the boat loads up on the new tack and starts heeling the other way.

Grab the New Sheet

From this straddling position, you are now able to grab the new jib sheet at the cleat, which is very important because you maximize your trimming motion as you continue moving outboard on the new tack. Because the jib sheets must cross in the boat, with the starboard sheet in front of the port being the standard rigging method, there is an inherent asymmetry to the

Tacking CONTINUED

tacking maneuver. While tacking from starboard to port, your front (right) arm must loop over the top of the port jib sheet (which is hanging and dead ended to the starboard trapeze handle) before reaching down to grab the starboard jib sheet at the cleat. Not making this move will cross the jib sheets as you tack, and not allow you to complete the trimming process.

Alarie advocates “ripping” the jib sheet in and cleating before getting hooked. However, Mike Martin prefers just holding onto the jib sheet and bringing it with you as you get hooked to save time. Regardless of which variation you choose, it is imperative that little time be wasted getting across the boat and hooked on the wire.

Hooking In

As you continue moving across the boat, rotating your hips, Martin suggests focusing on the new trapeze ring, and grabbing it with your new forward hand as you rotate. At this point, Alarie has already fully rotated his hips, is sitting to weather, and has ripped the jib sheet into the cleat.

Now, grab the ring by wrapping your hand around it, and place it firmly in your hook, and simultaneously throwing your weight outboard, literally falling over the side. The trick here is to have continuous momentum through the tack, which is what gives this move great speed and fluidity. Alarie stipulates “You are trimming the sheet, rotating your body, hooking in, and going over the side all in one motion. If you stop to complete any step, then you lose the momentum, the boat heels, and it is harder to go out.”

Some people worry they will miss the hook and launch themselves into the drink. Alarie explains that the biggest hurdle to learning this technique is trusting that you can hook in without looking, and to have the confidence that you can drop over the side without visual confirmation. “The key here” explains Alarie, “is to know that you can hold yourself up on the hook if you do happen to miss the click in. I was surprised the first time that I missed that I could just hang by holding onto the hook!”

Get Out There!

The ideal Hook and Go Tack completes as the crew punches out on the wire just as the boat loads up on the new tack. A fast crew might be able to push out just before the boat loads up, and his bottom will drag in the water slightly before being lifted out. For the driver, this is an indication that he can speed his rate of turn slightly. If the crew is constantly struggling to punch out, this is either due to slow, discontinuous movement, or a rate of turn which is too high.

Mastering this technique will give you confidence that you can nail all heavy-air tacks, and be able to tack repetitively with less strain and fatigue. Perhaps the next time you win a race by inches, it will be because you are using the Hook and Go Tack, while your competition is still swinging from a vine. ☺



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THE DOWNWIND PASS

How To Nail The Boat In Front Sailing Offwind

By Jesse Falsone, Team CSC Sailing, USA 8629

Large boat speed differentials, accessibility to lanes, and the effects of wind shadows make passing boats on the downwind legs easier. On most runs, you are either passing boats, or getting passed by them! If your boat speed relative to the group around you is adequate, perhaps it's time you examine your downwind strategy, and how you can set yourself up for that crucial pass before the leeward mark.

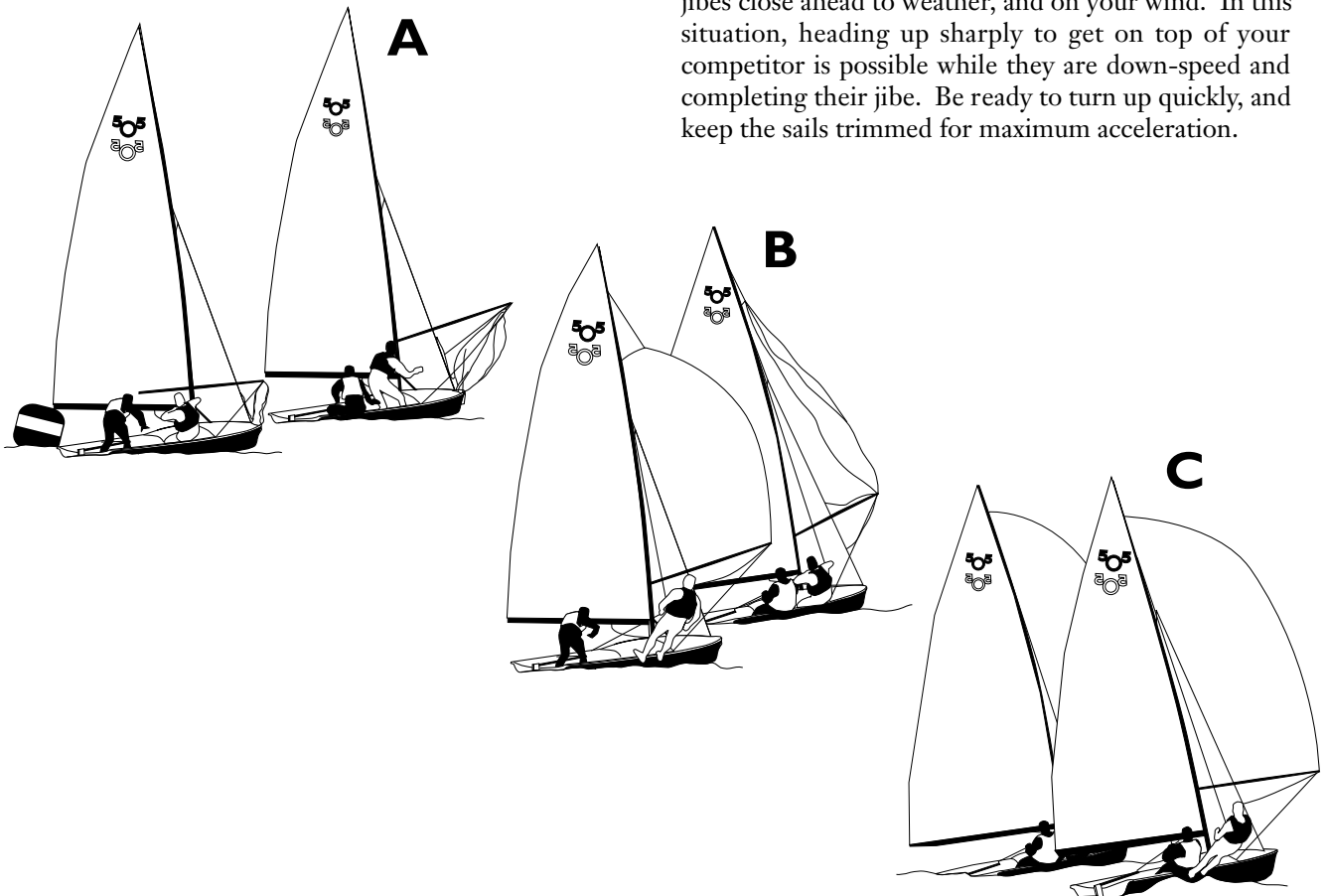
There are a number of situations in which the downwind pass becomes a lethal weapon in your tactical arsenal. However, you will never be able to execute the move if your boat handling is sub-par, and in most cases, boat handling needs to be perfect. Spend the time to get your teamwork up to snuff. You need to be able to shift gears quickly and effortlessly with velocity changes, and perform the perfect jibe with split-second notice. No downwind passing strategy will be effective if you don't have all the right moves in your repertoire.

The Up and Over Pass

There are a number of different situations in which you can pass on the wire run. The "Up and Over Pass"

is a quick pass you attempt just after rounding the weather mark. This pass is almost entirely dependent on perfect teamwork, and on the boats in front being very close. To perform this pass, the driver must hoist the kite very quickly, and the crew must get it flying and be on the wire immediately, even before the hoist is complete. If possible, the driver should not head down hard to hoist the kite - leave that for the boats in front. Instead, the bear away should be modest, and enable you to retain a weather lane on the competition (A). After launching the pole, the crew should grab the spinnaker sheet, get the kite full, and immediately leap onto the wire (B). From there, the crew can call the distance the halyard must travel for a full hoist ("4 feet, 2 feet, Made!"). At this point, the driver can sheet in the main, head the boat up, and sit down on the tank (C), leaving your competitors scrambling for the gas masks. Remember, as the clear astern or windward boat, you are the give-way yacht, so be careful not to foul.

The Up and Over Pass is also effective when a boat jibes close ahead to weather, and on your wind. In this situation, heading up sharply to get on top of your competitor is possible while they are down-speed and completing their jibe. Be ready to turn up quickly, and keep the sails trimmed for maximum acceleration.



The Grind ‘Em Down Pass

Often times, you will be more than a few lengths behind your competition at the weather mark. In this case, utilize the “Grind ‘Em Down Pass” on the run. Be prepared for this move to take the length of the leg if boat speed is identical. One pre-requisite is that the influence of your wind shadow must be felt significantly by the competition somewhere during the run.

On a standard starboard spinnaker set, racing out to the left side of the course (looking upwind), you are merely trying to position yourself for the pass by sailing deeper and/or faster than the competition. It is absolutely crucial that you are ready to jibe immediately when you see your competition jibe, so set the boat up by pre-trimming the jib, and tossing the spinnaker pole launcher line over the side. The driver should take note of your apparent wind direction, and decide where you will need to be positioned relative to the boat ahead after the jibe so that you can blanket them. Positioning yourself to leeward will give you a little reaction time for the jibe to port, whereas taking a position directly behind requires a simultaneous jibe. When the lead boat jibes, all your practice pays off when you execute a perfect wire-to-wire jibe, and you make up a crucial boat length. Moreover, the boat behind you might have had passing plans of his own, but your perfect maneuver has helped protect your lane. Now you are in the passing lane that you spent the first half of the leg cultivating, and it’s time to make your money. If you have a wind indicator at your masthead, try and align it with your competition. Your downwash will be felt by them many boat lengths to leeward. Sail the boat fast, and be patient to allow that wind shadow to do its worst. As the boat ahead slows, keep the pressure on by heading lower to sustain the wind shadow. You are now closing on them laterally.

If there’s plenty of race track left on port jibe, simply try and pass them headed for the starboard jibe layline. Now that you’re ahead, be careful not to get caught in your competitor’s wind shadow after the jibe! On the other hand, if you are unable to pass on port jibe, and the layline is fast-approaching, consider an early jibe that will again put your shadow on their sails when the boat ahead jibes on the starboard layline. Because you nailed your jibe again, you have gained another boat length or two. Immediately set the boat up again for a jibe back to port so you are ready to go back at them going fast. Speed on the port jibe layline can be a great weapon at the leeward mark. If your competitor is inside at the two boat-length circle, chances are they are not going fast, and they might even have to jibe back onto port to round the mark. Use your speed to punch through their lee at the rounding as they struggle to douse the kite and make a big turn all at once, then gas them from a tight lee-bow position.

Defending Your Lead


The boat ahead on a wire-run should be prepared to defend their lead. The best defense often comes from smooth, flawless boat handling. A quick spinnaker set, and a full kite can deny a passing lane and discourage an attempt to pass at the weather mark. The driver should be careful not to set up too low for the set, because a low position will be difficult to defend, even with a perfect set. A low position opens a passing lane, and requires a large turn to heat the boat up, and power the sails.

If you are lucky enough to round the weather mark with a few boat-lengths lead, and in no danger of being rolled, it is best to make a low set to establish a position to leeward of your competition before they round the mark. This leeward and ahead position will help you defend against the boats behind trying to grind you down by allowing you some breathing room after the jibe to port.

While working down the run on starboard jibe, speed is always a great defense. If you can extend or sail lower than the competition, you will prevent them from focusing their wind shadow on your sails after the jibe. In this position, work hard on maximizing your speed and angle by being smooth in your boat and sail trim, and working through the waves. If you are slow, compare your technique with that of the best sailors in the fleet, and also consider the condition of your spinnaker. New kite designs are now maximum size, and have increased depth for greater downwind power. If you have an old spinnaker, you might be hopelessly outclassed on the run.

In rare cases, a fake jibe can throw the boat behind off your track, but it will come at the expense of a few boat-lengths of your lead. A keen competitor behind will be patiently waiting to pounce on you during the jibe. A fake jibe has the best chance of success when the boat behind is in your wake not far away, or positioned to weather. In this position, they must jibe immediately to have any chance of stealing your wind on the new jibe. If the boats are positioned in this manner, the fake jibe should be initially executed like a normal jibe, with the crew swinging into the boat, and the driver making a turn down. However, the crew should not blow the pole, or release the sheet. The driver should simply heat the boat back up after the downturn, and the crew should jump back on the wire.

If you’re duking it out with a competitor at the leeward mark, use the 2-boatlength circle to your advantage to preserve a lead. Jibing to starboard on the layline allows the boat ahead and inside to assert their rights and retain the inside position at the mark. As soon as you have established the overlap, work for a flawless rounding to deny the boat behind a lane around you.

Ultimately, the downwind pass, and defending against the downwind pass, begin with great teamwork. With short-course racing now the norm in tuning sessions, you should have plenty of opportunity to practice these moves. With the downwind pass added to your bag of tricks, you can look for opportunities to use your new strategy at the next big 505 regatta. 



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RIGGING: Style vs. Substance in the 505

By Jesse Falsone, Team CSC, USA 8629

One of the very best aspects of the 505 is the open rules for running rigging. With few exceptions, if you can dream it, you can install it. No restrictions on running rigging have put the 505 at the vanguard of modern dinghy design in spite of its age, and many great ideas were either born or refined in our class. And just when you think rigging ideas have reached the point of diminishing returns, someone comes up with a better mousetrap or a “gee, why didn’t I think of that” idea. The end result of this relentless tweaking, aside from a lighter bank account, is a more refined 505 - one that can be driven harder and with greater ease than ever before.

Necessity is certainly the mother of invention in the 505, and many of the best rigging solutions were born of common problems or nuisances. Does your boat need to shave a few pounds? Try going on a diet with new composite hardware and high-tech line. Do you have too much friction in your systems? Try designing a new cascaded control system with thinner line and low friction blocks. Are you having trouble getting under the boom in heavy air? Install a flattening reef. Rigging solutions like these have been around for years, but now

there’s a new generation of gizmos sure to pique the interest of gadget heads everywhere.

Many of the top sailors in our class have in common the ability to diagnose a problem, and create a sensible solution. Carl Buchan has been an innovator for decades, and he recently brought his vision of a simple, yet effective, 505 layout to the 2004 Worlds. Trevor Baylis described Buchan’s boat as a “short course 505”, whereby gross adjustments for many controls are “integrated”, making for less line pulling at crucial points in the race where you are fastest with your head outside the boat. Carl says “Our goal was to create a boat that just about anyone could sail with ease, and which suited our style of sailing. We loan our boat often to new sailors, and we wanted them to feel comfortable, and not overwhelmed with all the strings.” Despite the simplified layout, Carl and Carol had few problems keeping up with the top of the fleet during worlds, placing an impressive 9th overall, and winning a race. In contrast, Baylis described the world champion’s boat as a “long-course 505” which has great fidelity in adjustment and tuning with most controls, for the purpose of wringing every last ounce of straight-line speed.



Style

The Buchan’s rigging of Rondar USA 8792 suits their “head out of the boat” sailing style.



Substance

Morgan Larson and Trevor Baylis saw substantive rigging in Waterat USA 8854 as the answer for ultimate speed on the long course.

Rigging CONTINUED

Rigging for Style

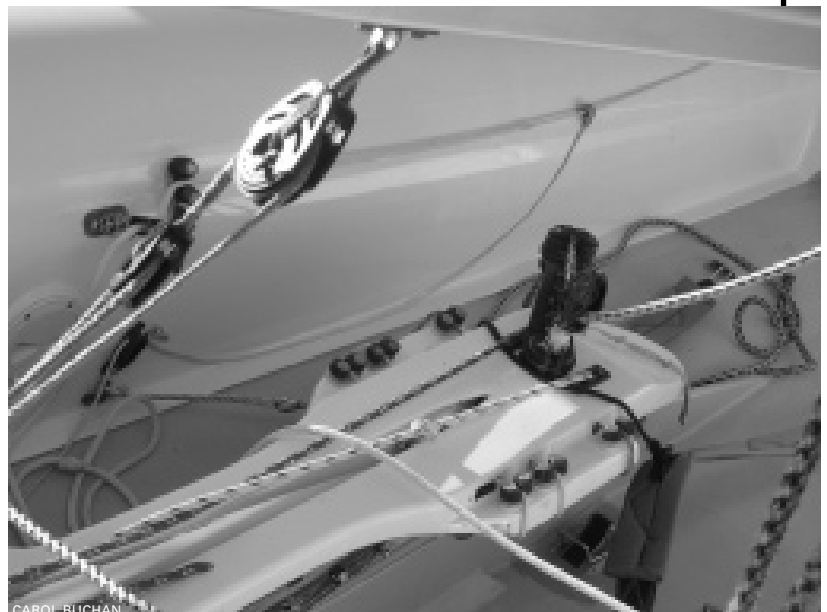
The Buchan's boat hardly looks like a 505 when viewing the cockpit. Where did all the lines go? The fact is that the functionality of the boat has not been compromised dramatically, and many of the systems have been "integrated". The idea of integration is that you tie in two systems into one control line, thereby reducing the amount of line and adjustment time required. It's really ingenious. The Buchan's boat is a showcase for integrated rigging systems. The forestay is tied in with the ram down control, the spinnaker halyard is tied in with a ram pre-bender, the cunningham is tied in with the jib cloth, and the spinnaker twings are tied in with the spinnaker sheets. It's like killing two birds with one stone. There are fewer strings to pull, and less spaghetti in the bilge.

It may seem like a lot of trouble re-rigging a boat with integrated systems, but for Carol, it was worth the effort. "I remember sailing the Worlds years ago", Carol recalls. "Whenever we were around Colclough (*ed. Peter Colclough is a four-time 505 World Champion*) we were thinking that he was not going a whole lot faster than us for a guy who had won multiple times. But, he never had slow moments or boat handling errors, and he was always set up for the conditions. I think that is a good goal, to have a boat that you can feel totally comfortable in so that you can concentrate on all of the things going on outside of the boat." For the Buchan's, feeling comfortable meant altering their rigging to suit their sailing style.

So how can adjusting the forestay also move the ram? It's quite simple in theory because these two adjustments oppose each other. When you rake the mast back, you must ease the forestay and pull the ram on tighter to keep the lower mast from overbending. By integrating these controls, the opposing forces actually make the adjustment easier by reducing how hard you need to pull. But, will the ram be at the right height for the given rake? Howie Hamlin rigged this system to his Waterat, and was amazed to find that the ram is always near spot on his tuning grid numbers.

The diagonal bulkhead achieves a cleaner look with the omission of the twing lines. The Buchan "Auto Twings" are simply tied to the spinnaker sheets such that when the pole is launched and the guy comes tight, it also draws the twing tight. Some initial adjustment is required to get the line lengths right. This rigging solution is certainly more viable now with the larger spinnaker and wire running a greater percentage of the time. The auto-twing doesn't work with the pole back, but Carl says that when it's light, he just sits on the spinnaker sheet "to keep the slack created in the guy from changing the tension in the twing".

The auto ram-up was actually the brainchild of Jay Renehan and Fritz Lanzinger, but Carl was quick to



No jib tracks, and very few control lines to trip over in the Buchan's cockpit.

Rigging CONTINUED

adopt it. The concept was to keep the mast from inverting with the kite hoisted and the pole compressing the mast aft. Most West Coast boats don't use a pre-bender, so Lanzinger devised a system that automatically prevented the ram car from dropping when the spinnaker is hoisted. The retrofit is actually quite simple. A length of 7/64" Spectra is run from the top of the ram track, down under the ram car pin, through the ram tube, then over the strut pin and through the deck. On Waterat hulls, all you need to do is remove the center machine screw in the deck (don't worry, the two remaining screws are sufficient for the shear load). Now, drill down creating a hole just aft of the forward bulkhead. Run your Spectra down through a cheek block, then aft through the lightening hole in the mast step. Attach a block to the end of this line, then run the spinnaker halyard through it. You will need to reverse the cheek block on the side of the mast step so that the spinnaker halyard now runs forward to the block on the end of the spectra. The halyard then runs aft as normal. Getting the length of the Spectra right is tricky, so leave some tail.

Some control lines were simply omitted on the Buchan's boat for simplicity. The topping lift is a fixed length for wire running conditions, and when it's very light they simply don't pull the pole all the way out to keep the clews lower. Carl says "the kite looks better with the luff vertical when it's that light anyway." The outhaul is also fixed, and is adjustable only at the end of the boom in between races, and the jib leads are fixed in one location, with no tracks and no means to adjust them.

Carl sums it up nicely by saying "It's important to keep in mind that making the boat simple to sail was our goal when rigging the boat, and we realized that there would be trade-offs in doing this. One appeal of the 505 for me is the ability to try different ideas; some ideas are bad ones and get removed real fast, while others stick around while we try to work out the bugs. We may have gone a bit far with things like the non-adjustable leads, but we actually got that one from Howie!"

Rigging for Substance

Morgan Larson and Trevor Baylis' 505 (USA 8854) stands in stark contrast to the Buchan's boat. "Ours is a good example of a 'long-course boat'", explains Baylis. The goal with the Larson/Baylis boat was to have the ability to test different, somewhat unconventional, rigging ideas, while retaining the option to get back to a standard configuration. They were most interested in maximum speed potential around a long course, in deference to sailing style concerns. This boat has a number of additional



2:1 jib sheets, with the capacity to sheet inboard via custom carbon jib lead system.

Rigging CONTINUED

adjustments not found on conventional 505's, like the ability to radically alter the transverse jib lead position, and to move the centerboard longitudinally in the trunk. The I-14 style rig has adjustable cap shrouds that allow for a tremendous amount of upper pre-bend thought to be fast in lighter air.

USA 8854 also used a side-mounted launcher to accommodate the forward tack fitting. After some testing (and some spinnaker sheets under the boat), Larson and Baylis realized they would have to alter their sailing style to sail the boat effectively.

However, not all systems on 8854 were designed around pure speed potential. Baylis used 2:1 jib sheets for easier handling and fine control in breeze. Some additional pulling is required, with twice the line in the bilge, but this was a worthwhile trade-off for Baylis, who realized long ago that there's no virtue in hurting yourself pulling highly loaded sheets.

Baylis has always had distain for the conventional ram to control lower bend. Baylis stipulates that "a typical 505 ram doesn't allow for a real pole foreguy because the ram obstructs it on port jibe. I wanted to remove the obstruction." In order to do so, Baylis had to create a rig with lower main spreaders for additional support. A deck-mounted lever pushes the mast aft in the partner, which is inherently less effective than a standard mast ram, but allows for a clean foredeck.

Baylis apparently also got fed up with the pole getting caught behind the mast during a jibe, so he created "the device", also known as the "Morganhauler" by some. For me, this simple invention ranks at the top of the "why didn't I think of that" list. It's just a line that when pulled on, keeps the pole from fully retracting during a jibe, making it easier to reconnect the spinnaker guy to the pole. It's also handy as a "pre-launcher" for the pole before rounding the weather mark. My only tip is to not pull it out much more than one foot, otherwise the jib sheets have a nasty habit of getting wrapped on the pole during a jibe, and if the pole is too far forward, attaching the guy becomes difficult.

One thing these boats have in common are the auto twings. "That was just too good an idea. I had to have them", says Baylis. If you consistently sail in winds over 10 knots, the auto-twings seem like a sure way to go. However, Mike Martin was unconvinced: "If you have a very fast crew, there's no need for them".

Whether you rig your boat to best accommodate your sailing style, or for substance and speed, new solutions exist, and the only limits might be the bounds of your imagination and laws of physics. Innovation in rigging is an integral part of this game, so if you have a slick idea, make a prototype and start testing. Maybe next year everyone will be looking at your boat and saying "gee, why didn't I think of that". 🍷



Offset spinnaker launcher tube on USA 8854 allows for a forward jib tack position.



A deck-level mast pusher allows for a "proper" foreguy unobstructed by a diagonal ram strut.



Pip Pearson's 505 career spans five decades. He's one of the few remaining active links we have to the early years of the 505. A three-term class president, Pip is one of the most-loved and respected members of the 505 Association. He presided over the class during a period of resurgence in the face of growing competition from a new breed of skiff classes, and was a major proponent of the now heralded long luff spinnaker, which has rejuvenated our downwind sailing. Pip has strong ties to the American Section, having won three North American Championship titles with Dennis Surtees back in the 60's and 70's. He is also one of the lucky few to have sailed with Paul Elvström in a 505.

Favorable circumstances, coincidence, and plain good luck have allowed Pip many great opportunities. Undoubtedly, his fortune has been aided by his affable character. In the past few years, Pip just seems to pop up at most world championships, signing on last minute with the likes of Ali Meller, Malcolm Higgins, and Aaron Ross. I had the good fortune myself of meeting Pip at the 1998 Worlds in Hyannis, where Team SPOT began a rivalry of sorts with Pip that continues to this day.

Tank Talk: Pip, your given name is Malcolm. Where did 'Pip' come from?

Pip Pearson: Oh, Pip's been my nickname since I was a little kid at school, and it's been that way all my life.

TT: Is that an English or Australian nickname? You don't hear that name in the US.

PP: Generally speaking, it's an abbreviation of someone whose name is Phillips. I actually inherited it from a school teacher at my prommy school when I was a kid. His name was Pip Pearce, and with our name being Pearson, there was that play on words between Pearson and Pearce - Pearson, son of Pearce, so both my brother and I got the name 'Pip' after the school teacher, and it just stuck with both of us all our life.

TT: You started sailing 5-ohs in the early 60's.

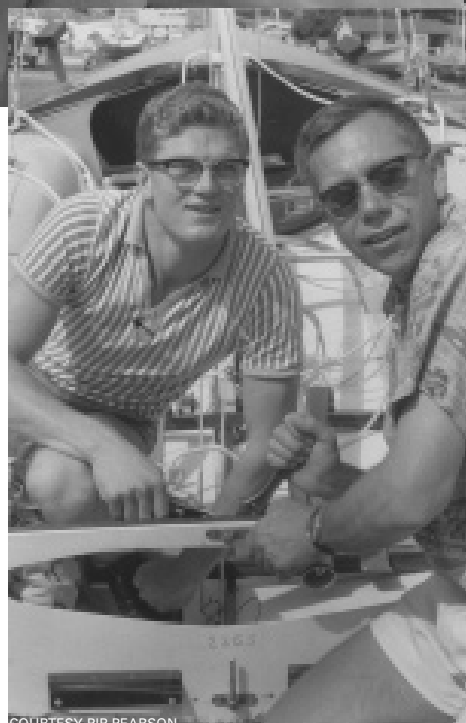
PP: Yeah, my first season was 1960-1961 with John Parrington, who went on to win the worlds in Cork, Ireland in 1964.

TT: Without you.

PP: Without me, yeah (laughs)

TT: So, how many 505 world championships have you been to?

PP: I guess it's about 15 or 16. First one was '66 with Paul Elvström, then there's



COURTESY PIP PEARSON

Pip Pearson in the Santa Cruz dinghy park at the 2004 505 World Championhips, top. That's Paul Elvstrom with the wrench and Pip looking on at the 1966 Worlds in Adelaide, Australia

'67 with Dennis Surtees in Le Baule, France. Third one was here in Santa Cruz in 1971. Then Dennis came out to Australia and steered my boat in Lake Macquarie in 1976. Then we went to Copenhagen in 1978. The worlds went back to Adelaide in 1983. I brought Paul Elvström back from Denmark to skipper my boat. Then I had a bit of a break, after spending two to three days a week helping to organize the Adelaide Worlds. The kids were young, and we had just bought a farm, so I took a break from sailing for a few years. I think my first big regatta after that was when I came back here in 1992.

TT: So you took nine years completely off from sailing?

PP: I think I did a couple of Australian Nationals regattas, but I wasn't a full-time sailor.

TT: Do you think that break was good for you and your family at the time?

PP: Yeah, it was at the time because the kids were small, and we all recognized that sailing can be a bit of a selfish sport with time on the water and hours rigging the

boat, and time after words talking about the race, so it's not really conducive to family unless they are involved. The kids were about 2 and 4 at the time, and we had the farm and horses, so we did other things for a few years, which was great. No regrets whatsoever.

TT: Let's talk about sailing with Paul Elvström. How did that opportunity come about?

PP: It was purely coincidence. The day after Paul arrived in Australia in 1966 for the worlds, his crew, Pierre Poullain, who he won the worlds with in '57 and '58, had to turn back around to France when his father had died.

Paul had been off from sailing for a couple of years following his nervous breakdown. He had been a bit uptight and gave sailing away entirely. The Adelaide regatta was his first regatta after having quit. Paul was without a crew, and I was the only guy around the club that had any 505 experience that wasn't sailing. So one of the organizers paired him up with me to go sailing for a couple of days while Paul waited for Colin Laury to come over and

crew for him. Fortunately for me, after doing a couple of races with him, Paul asked me to sail the worlds with him so he didn't have to worry about getting Colin over from Sydney. So I was a bit delighted about that, and of course the rest is history. We almost won it - came a very close second, and it's been pretty good ever since.

TT: It always seemed awkward with Elvström driving from the wire. Was it awkward for you to be crewing and hiking from the front of the boat?

PP: It's much easier crewing from the trapeze. You have much more flexibility and maneuverability, and you have a better sense of balance when you're out on the trapeze. But, you must remember that at the time it was a big marketing exercise for Paul. He had just designed and put on the market the Elvström Trapeze Dinghy, and him skippering from the wire was just a marketing exercise. And what a lot of people don't realize was that he only skippered from the wire during the Pre-Worlds, and never once did he get on the wire during the Worlds.

Big seas for the Adelaide Worlds in 1966. On the beach a laughing Paul Elvström and Pip in vogue wearing wool sweaters and in the photo below, Elvström is driving from the wire during the Pre-Worlds.



COURTESY PIP PEARSON



COURTESY PIP PEARSON



COURTESY PIP PEARSON

COURTESY DENNIS SURTEES



Dennis Surtees and Pip with others after winning 1966 NAs at Palo Alto. Dennis and Pip enjoying a day in 1974 off Santa Cruz

TT: What stands out about Paul Elvström?

PP: He's probably the only guy I've ever sailed with, including everybody, that could go out and tune on his own and know when he'd made a difference. For example, in the Pre-Worlds in Adelaide, we had done well, we were first overseas entrants, but we didn't win it, and Paul wasn't happy, there was something that wasn't right. So in the lay days between the Pre-Worlds and the Worlds, we went out sailing against the Danes, and we were killing them. And I thought, this was pretty good, but Paul said "Pip, we can't make any comparisons with them because they're hopeless". He got me to steer from the wire, and he got out his screw driver and adjusted his diamonds, and got back on the helm and said "Yes, that feels better, but it's still not right", and he could tell it straight away. After sailing for another mile or two, he said "I want to go ashore." So, we came ashore and changed mainsails, and went back out. We were on the water for about 5 minutes, and he says "Ah! That's what I'm looking for!" The next race was the first race of the Worlds in very light conditions, and we were first. The second race it blew 25-30 and we were first. He just knew what he was looking for. He could look, make an alteration to the boat, and identify what that difference was.

TT: Subsequently, you had spent some time in the US, presumably as an illegal

alien. I had heard a couple of funny stories about run-ins with policemen.

PP: Yeah, the trouble with American policemen is they don't fully understand Australian English. If you speak fast enough, they don't understand a word of it, so it can get you out of many a tight situation. But, any reference to the police was purely associated with Dennis and my trips to Los Angeles, maybe speeding a little too fast down Highway 5, and I got picked up a few times. But, it was just too hard to give me a speeding ticket, so they tended to take it easy. Like all these stories, they tend to get exaggerated through the years. I wasn't an illegal alien, I was here on a tourist visa, and I had to keep going out of the country to re-new my visa. I went to Canada once, and once to England and came back. I was here for two years - '66 to '68, then home to Australia for two years, then came back to the US in '70-'72. When I came back the second time, Dennis Surtees had set up this little business, "Performance Marine" importing marine equipment, and he organized a V1 Visa, which is a working Visa for me, so I was here legally.

TT: I had heard you came over here initially because you were having trouble with your eyes.

PP: No, not quite right. Following the Worlds in '66, Paul Elvström had invited me back to Denmark for a celebration that

summer because it was the 200th anniversary of the Royal Copenhagen Yacht Club. They're a host of numerous world championships, Scandinavian, and European series during that summer. It was going to be a big event. I decided that was an opportunity too good to miss, and at the same time I had been having terrible problems with my eyes back in Australia, and a specialist suggested that if I got the opportunity, I should get over to Moorfield's Eye Hospital in London and seek out this Professor Rigley, and see if he might be able to help. So, it was a good opportunity to get overseas and re-acquaint myself with the yachting contacts I had made, sail the World Series, and get over to London to have my eyes examined. I spent four months at Moorfield's as an out patient in late '67 and early '68, and they discovered what the problem was, and eventually referred me right back to Australia for surgery. As a result of that, I've had six corneal transplants through the years.

TT: You had sailed three North American Championships with Dennis Surtees, and won them all. Is that right?

PP: Sailed four with Dennis, and won three. We had the North American's here in 1968, and as I recall, John Norheim won that one, and I haven't seen much or heard from him ever since. My memory is a bit dim now, but I don't think the '68 NAs was a particularly heavy weather regatta,



*Aaron Ross
helming at the
Santa Cruz
Worlds in 2004;
Pip and Paul
Elvström are
together again
during the 1983
Worlds*



and he was a light weather specialist, and he beat us.

I came out here in June, '66 and this is how the arrangement with Dennis first started out. Just by sheer coincidence, I was just coming here to Santa Cruz literally for the weekend, and then I was heading up to Vancouver, and on the very weekend I had arrived, John Joss, who had been crewing for Dennis, told Dennis that he had just recently changed his job, and wasn't going to get time off to crew the North American's in August, which was about 6 weeks away. So I told Dennis that I wasn't in any particular hurry to get to Europe, and that if he'd put me up, I'd be happy to hang around and crew for him. Dennis jumped at the opportunity because at that stage I was more Elvström's crew than Pip Pearson, and Dennis hadn't had that much experience in 505's, so he put me up. I said, "Look, I'm not going to be here mooching off of anybody, so I'm

going to need some work. What can I do for work?" So, Dennis put a notice up on the hospital notice board that said "Healthy, Young, Strong Australian Needs Work, and See Dennis Surtees." In no time flat I had more work than I could handle. I recon I painted every surgeon's house in the hospital.

So Dennis and I won the North American's in Palo Alto in 1966, and of course that gave us the right to represent the States in '67. Back in those days you had limited entrants and you had to qualify. So, we went off and did Le Baule in '67. When I came back in 1971, we won the North American's at Waukegan, and the 1972 North American's on Narragansett Bay on the East Coast.

The whole scenario, the sailing with Dennis and living with the family over that four year period was really a dream come true for a young Australian single bloke like me. We had a lot of success and a lot of fun, and we've been life-long friends ever since. It's been marvelous.

TT: Did you ever try and immigrate to the US?

PP: At one stage around '72, I figured that this was the place for me, and we tried to pull some strings in political circles to get a Visa, but it didn't work and process was too strict. At that particular time too there was high unemployment in the US. Also at that time the issue with my eyes was starting to get a bit urgent, and I needed to get back to Australia and get some surgery, which I couldn't even contemplate in the States because it was so expensive,

and I was covered by my medical insurance back home. So that was a good reason to go back home. I was also 28, and figured I was going nowhere in life at the time, and I should settle down and stop being a yachting bum. So, I stayed in Australia.

TT: Let's talk about the association. You presided over the class during a period of change - a fairly large measurement rules change to the new spinnaker, and you were a big advocate of the change. Three years removed from the rules change, what has been the impact?

PP: I think the impact has been fantastic. When I was president, I deliberately took a conservative role. I recognized that the strength of the class is not just with the guys that come to the World Series every year but with the guys in the home fleets around the world that sail every week. I felt that if we keep on making radical changes to satisfy the hot shots that come to worlds, we'd have no one coming to the worlds aside from the hot shots. I think we all need to recognize that the success of the world series is all those guys that come along who know darn well they're not going to win, but will be 25th down to 100th. They make up the numbers, and that helps the whole process. At the same time I felt the class was a little bit restricted by our own democratic process, and the process of changing rules is a little bit slow. But, maybe that's good because you don't want to make changes that will obsolete boats, and that's the thing that I was really hung up about. The change to the big spinnaker was so minimal, and we look back at it now and laugh about it even though we were so concerned about it at the time. Everybody buys a new spinnaker if not every year, every couple of years anyway, and the alterations to the mast was simply moving a fitting and a new halyard. It was immaterial. Look at the benefits. The big spinnaker has transformed our downwind sailing. It's so much more entertaining. In some areas like that we should be a bit more willing to change quicker. At the member's forum in Fremantle, it was almost unanimous in support of considering the fully-battened mainsail, but here we are two years down the track and nothing's been done. I guess that's a by-product of having an association-based class and not a manufacturer-based class. Although the change is slow, that's probably a good thing.

TT: There was some discussion at the AGM about limiting the span of the centerboard and outlawing lifting pins. Is development along these lines with boards and pins detrimental to the class?

PP: I think we need to look at it very closely and I think we do need to restrict it. One of the nice things about the 505 is that we are a developmental class, and it gives the people who like to innovate the opportunity to use their imagination, creativity, and engineering expertise. The downside is the boat continually gets more complicated. Part of our role in promoting the class is to encourage young people to join, and I think it is a deterrent for young guys coming out of a boat like the 420 to look at the next step up. Simplicity is a good thing, but it's a fine line between being too restrictive and encouraging development. Maybe we should look at a maximum span board. The rules in the boat design allow for a maximum size center case, and whatever fits in it is permissible, so all these weird designs to get the maximum size board in is causing a lot of expense, which is turning a lot of people off. With regard to lifting pins, that's a bit of a double-edge sword because I remember back in the old days when lifting pins just weren't around, you had a fixed pin, and you would definitely have two centerboards. You would have a big board for light weather, and a smaller board for heavy weather. With the cost of a centerboard these days, if we went back to that system, the cost of having 2 boards is more expensive than having a lifting mechanism in the boat.

There are a few areas, like with measuring the thwart width, where we just need to eliminate ambiguity in the rules. I think we can do that. With all due respect to John Westell, when he wrote the rules back in 1954, he probably didn't have the ability to foresee in 40 to 50 years time of having fiberglass, carbon fiber, Kevlar, and all the modern construction techniques we have today. It just wasn't possible to think about that.

TT: What does the class need to do within the next decade to remain as the best and biggest high-performance class?

PP: Historically, I think the biggest mistake our class has made is the lack of information. Because we are an association-based class, and not a manufacturer's class, we don't have the

funds and resources to promote ourselves, and because it's such a specialist boat, promoting ourselves through advertising and marketing would be like pouring money down the drain because you wouldn't get the result. You might get some results for a couple of months until people find out it's too hard. I am absolutely and totally convinced that the only way to promote this class correctly and effectively is for each member through their own yacht club to keep targeting junior sailors coming through in the 420's and 470's, and whenever possible, to give them a ride. Get them in the boat, and take them out. If you put a 14 to 18 year old in this boat, and he's been used to sailing other boats, and it'll blow his mind. There're examples of this throughout this boat park—the Jeff Miller's, the Howie Hamlin's. Make their eyes bulge when they're a teenager, and they'll be hooked. Most people here have been in the class for years because having sailed a 505, they can't contemplate going anywhere else.

TT: How do attract this younger generation to a 505 when they have their sights set on first a 29er and then a 49er, or other skiff-type boats? These are the new boats that kids aspire to sail. They seem to view the 505 as a very cool boat, but very complicated, expensive, and passé.

PP: I'm not sure I have the answer to that. It's a difficult question. It's hard to explain to teenagers about the benefits of the 505 family culture, which we all appreciate and understand. I think the only way to give them a ride and make them feel welcome, and keep on telling them what a great group of people are in the class. Surely the cost of a 49er has got to be greater, I'm not sure.

TT: I think the 49er is comparable in price to a 505, but there's no US manufacturer anymore, the boats don't last, and there aren't any US fleets. You have to really be involved with an Olympic campaign, and then it gets more expensive because you must go overseas to compete. In the US, the 505 is probably a much easier sell than a 49er. I believe our main competition now a days are actually keel boats, which seem to take many of our finest collegiate dinghy sailors, who are less willing to finance and organize their own campaign.

PP: I think another way to promote ourselves better is through promotion of

events like this through the yachting media to get better exposure in the sailing world—to make everyone aware of the fact that we are alive and well after 50 years of existence. Because the 505 is an old design, they don't see it as being "chic", without actually realizing how chic it really is! I remember a few years ago there were all these concerns about the new asymmetric boats coming out, the ISO, the Laser 5000, the 49er, the BOSS. There was a whole flurry of new boats coming out in a short span, and we were all concerned that these things were going to kill off the 505. Well, all those classes would be really envious of regularly having over 100 boats at a world championship. We survived them all. You'll see them come and go—they're five minute wonders. Ten years down the track and they'll be gone.

TT: It seems with me that we're competing less with other classes and more with demands on people's time. People have a lot of different activities these days, and fewer are willing to dedicate themselves to only one. This is especially true in the US, where greater wealth has spawned more activities for kids, and parents have less leisure time to teach their kids how to sail.

PP: That is certainly the case in Australia. The biggest change I see with Australian you is they all have part time jobs and jobs on the weekends, and they just don't have the time to commit themselves to a regular sporting activity, which is really a shame. Whereas when I was a kid, people worked Monday to Friday, the whole weekend was off for sport, and we all played two sports - a summer sport and a winter sport. There's just a whole range of sporting activities kids can do these days too, and on an individual basis without having to commit to a team, a skipper, or a club. That's what they seem to go and do.

TT: Let's discuss the sailing rules. In previous world championships, ISAF has dictated that Rule 42 (kinetics) will be enforced on the water. There have been different opinions as to the need for this enforcement in the 505 class. What's your opinion on Rule 42 enforcement, specifically regarding the 505 class?

PP: I don't think we have a problem in the 505. I'm a little bit concerned about having policemen on the course telling us how to run our own show. I think it would be easier to have no enforcement

whatsoever, and part of the sport is athleticism, and making a boat go as fast as you possibly can is part of that athletic prowess that's required to get the best performance. Whatever you can do to make your boat go fast, so be it. So long as your boat measurers, if you want to exhaust yourself by rocking the boat, by pumping the boat, or doing whatever, one ought to explore those to the limit, so long as we're all on the same playing field. That's all that matters.

TT: How do the competition and the boats compare today to that of the 1960's?

PP: I think the intensity of interest among the good guys back then is the same as we have today. The biggest difference today compared to yesteryear is, with the exception of the likes of Paul Elvström, most people were purely weekend sailors. But they did it with the same intensity, and I feel the competition then was just as good as it is today. The boats have seen big improvements in technology, with the new sail materials, new ropes, and hardware that have made the boat so much easier to sail. Some

things have come full circle. Bryan Price won the 1963 World Championship with what people considered then as high-aspect blades. Someone in the States had a lifting pin back in 1971. Things are much more refined now. One of the biggest differences today with performance is what we would call professionalism in the sport. Guys like Howie and Mike spend so much of their time every year on the water racing boats. I think the level of expertise has improved dramatically. I think the difference is that despite the results you see in the standings each day, the competence of the yachtsman today at the back end of the fleet is far greater than that of the person 40 years ago at the back of the fleet. I don't think the good guys are getting that much better, and you can measure that by the time it takes to get around the course. Back in the old days, the ultimate in performance was to get the boat to plane to weather, and you do that now on a regular basis.

TT: Adelaide 2007. You're going to be one of the principal organizers again. What can competitors expect in Adelaide?

PP: I think I probably will be. There is heaps to do in Adelaide. We say we're the best kept secret in Australia. It's a small town compared to Sydney, Melbourne, and Brisbane. Because it's a small town, we have the benefit of that small town hospitality and atmosphere. It's a very easy place to get around. Crisp, clean waters to sail in, and a great sea breeze.

TT: Is there anyone who you particularly enjoy beating in a race? Is there anyone you have an established rivalry with?

PP: Not really, no. My mindset is to sail the boat well, to watch the wind shifts, and sail my own race. Most importantly, I want to have a good time. I do like beating people who belong to my home club - that's always an ego trip.

TT: Last question. How many beers does Barney Harris owe you?

PP: I think at this stage, it's 1,768. I think it's 2 to the 12th power, and I'm not sure we're going to get them. ☺

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SAILING STRONG

Core Power On The Ball

Wendy Willis, M.A., C.P.T and Kristin Strellis, C.P.T.

Your core is your powerhouse providing strength for your entire body. A strong core will provide you with better balance, more endurance for holding hiking and trapezing positions and most important, will help prevent excess strain on your back. Using an exercise ball, stability ball, swiss ball or physioball (whatever you want to call it) is a very effective way to build torso and trunk strength.

Make sure the ball you are using is the right size for you. The exercise ball should be fairly firm. If you are sitting on the ball with your feet flat, your hips and knees should form a 90-degree angle with each other. The chart below is a general guideline for what size ball to use.

Exercise balls are readily available at most stores that carry fitness equipment and can be purchased for \$10-\$50 dollars. Usually the balls in the \$20-\$30 dollar range are the best exercise balls for the prices.

To get your core strong we recommend the following exercise progression:

Start with 1 set of 10-20 repetitions of each exercise. Progress to 2 to 3 sets of 20 repetitions with a 30-60 second rest between sets. Each exercise should be done to near exhaustion. 20 repetitions should be difficult to do. If they are easy, really focus on pulling the abdominals toward the spine, and make them work hard. Don't let momentum take over, slow movements will give you better results.

NOTE: If you are feeling the exercises in your back, you are not doing the exercise right (except for back extensions). Re-adjust your position and really make your abdominals do the work. If you still feel it in your back, stop the exercise and give the abdominals a break. Give a minimum of one day rest after doing exercises to assure adequate rest for the muscle groups. You can do all the exercises in one workout, or just pick a few to do each time and rotate the exercises around.

YOUR HEIGHT	BALL HEIGHT	BALL SIZE
Up to 4'10" (145cm)	18 inches (45cm)	Small
4'8" to 5'5" (140 - 165cm)	22 inches (55cm)	Medium
5'6" to 6'0" (165 - 185cm)	26 inches (65cm)	Large
6'0" to 6'5" (185 - 195cm)	30 inches (75cm)	Extra Large

SUPINE WALK BACKS

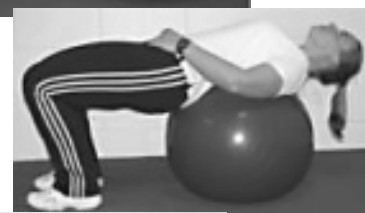
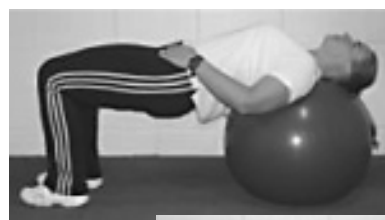
How to perform exercise:

This exercise is excellent for strengthening the abdominal and neck muscles for trapezing in the fully extended position for those long upwind legs.

- Lie face up with head and shoulders on ball.
- Lift glutes so thighs are parallel to floor.
- Contract abdominals and slowly walk head off of ball keeping head in line with spine.
- Walk back as far as you can without dropping torso and hold position for a few seconds.
- Slowly walk back to starting position.

Alternatives

- Arms extended over head
- Extend one leg out once you have walked back.



BALL CRUNCHES

How to perform exercise:

- Lie face up with lower back on ball and knees bent, feet flat on floor.
- Place fingers behind head with elbows pointing out to the side, optionally cross arms over chest or extend over head.
- Contract abdominals.
- Lift torso toward ceiling so the shoulder blades lose contact with the ball.
- Make sure you are using your abdominals to lift - don't pull on your neck.
- Slowly lower back down.
- NOTE: the further back you are on the ball, the more difficult the exercise will be.

Alternatives

- Legs straight so just your heels are on the floor.
- Single leg lift with crunch - bring one leg off ground while your crunch.
- Oblique crunch - lift shoulder across body [A].



PIKE/KNEE TUCK

How to perform exercise:

- Walk out face down on ball until it is under your shins.
- Keep back flat - don't let back arch.
- Position hands directly under shoulders.
- Contract abdominals pushing navel up through spine.
- Pull legs toward chest by bending knees [A] or keep legs straight [B] (more challenging)
- Slowly lower back down.



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AB CURLS

How to perform exercise:

- Lie on back with knees bent.
- Position ball between legs and squeeze using the inner thighs.
- Contract abdominals and lift ball by curling knees toward chest
- Slowly lower back down.
- Make sure your sacrum (lower back) is pinned to the floor through out movement.

Alternatives

- Crunch upper body at same time.



HIKING ABS

How to perform exercise:

This abdominal exercise mimics the sailing position the best.

- Sit on a ball in a hiking position (ball under legs) with feet hooked under a sturdy bar.
- Place hand behind head, or put arms in lap, across chest, or extended overhead.
- Contract abdominals and slowly lower torso back toward floor.
- Keep back straight.
- Slowly come back to starting position.




BALL BACK EXTENSIONS

How to perform exercise:

- Lie face down with ball under hips.
- Finger tips behind head, down sides, or extended overhead [A].
- Contract abdominals.
- Lift torso toward ceiling until knees, hips, and shoulders are aligned.
- Slowly lower back down.



Articles in this issue of Sailing Strong have been adapted from "Fit to Sail" by Wendy Willis.

Please send future Sailing Strong topic request or questions to Kristin Strellis and Wendy Willis at strellis@yahoo.com or ewillis@pacbell.net. 

regattas

ST. FRANCIS SPRING DINGHY

St. Francis Yacht Club/March 12-13

Place/Team	Points
1 Martin/Falsone	9
2 Hamlin/Lewis	15
3 Beeckman/Nelson	22
4 Cook/Smith	27
5 Adamson/Waterman	33
6 Oswald/Woelfel	34
7 Estcourt /Golsh	37
8 Kahn /Allen	38
9 Harris /Silverman	41
10 Harris /Byron	41
11 Jeangirard /Vongrey	49
12 Kahn /Larson	50
13 Lieb/Smith	50
14 Hagan/Lanzinger	51
15 Edwards/Smit	53
16 Dowdy/Bright	71
17 Ross/Ferrarone	71
18 Lawson/Jensen	93
19 Nelson/Kennerune	99
20 Pullen/Granger	102

SAN DIEGO NOOD

San Diego YC/March 18-20

Place/Team	Points
1 Taz	21
2 Phlegm	25
3 T.G.I.F.	28
4 88th Planet	29
5 Don't Pinch	34
6 White Trash	53
7 Road Kill	60

HAMPTON TRAPEZE

Hampton Yacht Club/May 19

Place/Team	Points
1 Sparkman/Moore	17
2 Falsone/Martin	19
3 Amthor/Amthor	38
4 Meller/Pohl	43
5 Marini/Harris	48
6 Hyrniewicz/Nelson	48
7 Nelson/Moon	65
8 Renda/Papadakis	73
9 Wyles/Patterson	78
10 Jones/Hayes	103

S.O.C.K.S.

Seattle Yacht Club/May 14-15

Place/Team	Points
1 Von Grey	13
2 Des Brisay	16
3 Corfu	18
4 Henry	42
5 Van Deventer	44
6 Trainor	51
7 Cammock	52
8 DeVita	53
9 Ginther	53

KINGS OF THE BAY

Treasure Island/May 21-22

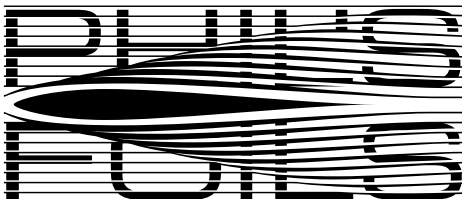
Place/Team	Points
1 Martin/Nelson	9
2 Holt/Adamson/Smit	19
3 Hamlin/Lewis	24
4 Lowry/Byron	24
5 Oswald /Woelfel	37
6 Girard/Waterman	44
7 Adamson/Silverman	46
9 Ross/Gray	53
8 Hagan/Glass	54
10 Lawson/Jensen	69
13 Billings /McKinney	82
11 Dowdy/Lopez	83
12 Nelson /Kurzava	83

ABYC MEMORIAL DAY

Alamitos Bay Yacht Club/May 28-29

Place/Team	Points
1 Martin/Falsone	6
2 Nelson/Raab/Thompson	14
3 Taugher/Tripp	18
4 Hagen/Woelfel	24
5 Guy/Courable	32
6 Waterman/Jeangirard	37
7 Billings/McKinney	44
8 Nelson/Kurzava	50
9 Pollard/Downing	55

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The 2004 World Championship Measurer's Report

By Dennis Surtees, American Section Honorary Member

Cold Call or Cold Cocked?

The phone rings, just as we sit down to watch a movie, just as it always does.

"Leave it", Jenny says, but just a second too late. It might be my conditioning from years of emergency call duty but, when the phone rings, I answer it.

"Dennis?"

"Yes", cautiously. A cold call?

"You don't know me". Shit, it is a cold call. Just ready to hang up when the voice continues:

"I'm Aaron Ross. I'm President of the American Section". I don't think he even says American Section of what. I know anyway. He is talking about the International 505 Class of course. Everyone knows that, don't they?

"Are you going to be in Santa Cruz for the Worlds?" The class is having its Worlds that year in Santa Cruz. and, of course, I am going to be there. I've raced the boat for 20 years and it is still the best racing dinghy the World since it was designed 51 years ago.

"Well, we need a measurer".

"You're joking, right?" I haven't looked at a 505 hull in twenty years. I don't know him well enough to say I think he's nuts. I tell him so.

"Look, Don O'Donnell, he is the Measurer, is not well enough to come. We need someone senior (does he say senile?) and respected (tolerated?) enough to express an objective opinion if a dispute comes up"

"OK Aaron, bullshit aside, I need some credibility here. I know the boat, and I think I know the people, but can you really expect them to respect the opinion of an old has-been like me?"

"You'll have the backing and respect of all the class officers. You know Rob, he's International Rules Chairman". He is talking about Lord Robert Napier. We used to call him the Honorable Rob but his father has long since passed away, leaving the title to him. My best recollection of Rob is during the last race of the 1973 (that's right) Worlds when we raced him boat for boat for two hours to be beaten at the end by a whisker. "Chris Thorne will be there too, not to mention Paul VonGrey, the US measurer".

The Binks Job

It is all sounding great but really! Me? Measurer? Do I really want to get into this? It is a serious "maybe". God knows, I know most of the games people play. I unknowingly owned one of the most illegal 5-ohs ever built! Old Binksey never knew what a great boat he'd built; at least, I didn't think he knew? There always lingered in the class the idea that the tolerances (differences in measurement) could be tweaked and that, in fact, this has happened in the boats made in different countries. Way back in 1966, when the Worlds were held in Adelaide, Australia, almost all the boats were made by the same builder, David Binks. I had owned one of Binksey's boats the previous year and won everything in it. We bought it, having met Bryan Price on his way back home from Larchmont where he won the 1964 Worlds very easily in a Binks 505. It was a stunningly beautiful creation in fiberglass and cold molded plywood. Its appearance was orgasmic. I fell immediately in love with this incredible looking machine. I had just come into the class and was struggling. I ordered one. It was delivered, freight-paid from Adelaide for the stunning sum of \$1600! "Fair Dinkum". A perfect name. Unlike Paul Elvström, who would no more name his boat than his tennis racket, I liked good boat names. We raced her for a year, winning the 1965 PCCs and everything else we entered. We, along with all the foreign competitors but one, went to Adelaide for the 1966 Worlds where we were loaned Binks boats pretty much like mine. No one measured because they were all the same. Besides, we were all more concerned with survival off Adelaide that year. I placed a glorious 37th!! Several of these boats were bought by Californians so when we got home our class measurer decided that it is about time to get certificates for them. So they were all measured but didn't—measure I mean! They all had flat transoms, probably up to 4 or 5 mm outside the tolerances. The International Secretary, Monique Baudry, and Percy Chandler, then Measurer, finds ways to grandfather these boats but insist "NO MORE". The next year, however,

Craig Whitworth and Bob Miller (Later to be Ben Lexan which is another story altogether) take one to the 1967 Worlds in La Baule. It is measured by the French and found to be just as illegal. But, you know, it is just the French. What do they know? They only had the biggest Section in the World at that time!

So, what the Aussies were calling a 505 back then is apparently more like a 50 - something. The tolerances for the hull have been intended by the designer, Westell, to allow the builders some slack when bending the original plywood. Now, 38 years later, with computers, glass and carbon fiber, "prepreg" this and vacuum-bagged that, is all this solved or am I stepping into a giant pile of you know what? I have heard rumours of at least two new Aussie and one Swedish builder. Each is making molds from previous generations of Oz boats so has anything changed? In addition, the old minimum weight for the boat has become a joke; boats can be strongly built by any competent builder for half that, making the weight up with very heavy materials glassed into the shell at the proper places.

All this, however, at the time of the call, is only a big rumour. I am to find out in the next weeks just how much substance it has!

But what can I say? I'm weak. No doubt about it, I am flattered to be asked. Honoured even. What a great opportunity to be involved with the class, both the boat and it's sailors that I have loved above all others? Aaron lays it on thick. I am not expected to get down on hands and knees to examine the 100 or so boats that are going to show up, but that I will carefully review the work of the official National and regatta measurer; that I will have the support of the International Secretary, the Class President and the Chairman of the International Measurement Committee.

The Con Job

I tell him that I will think about it, that I want to see all the rule changes and measurement instructions before I make up my mind.

I forget the whole thing until the e-mails start to arrive congratulating and thanking

me for accepting the Championship Measurer's position. So I am committed.

Now I start getting some details of the task. I watched Paul Tara measure a Waterat 505, very carefully, with no problems. But listening to the scuttlebutt around the shed, I am not reassured.

The Rumor Mill

The more things change, the more they stay the same: one of the local guys thinks that the new Van Munster (Aussie) boats still have flat transoms; after all these years, seems unlikely but incredible if true.

The Kahn Job:

Van Munster has been commissioned to build three hulls from a special mold for Phillippe Kahn and his son, Shark (Pegasus Racing). Now this is a good story. Kahn buys a dozen boats or so from different builders. The number varies depending on who is telling the story. He likes the 5-oh so much that he then gets a designer employed with Reichel-Pugh, famous Marine Architects, to design the "optimum" hull, using the 15mm template tolerances to achieve the "fastest" shape possible. Money is no object. A plug or male mold is computer designed and milled to match what another computer program says is the fastest shape, all, one is assured, within the rules. He makes three hulls, all for Pegasus. Nobody else is to get use of them until after the Worlds (reasonable, one supposes, since he is forking up the money). With both Don O'Donnell and the Australian measurer, Geoff, falling ill, the American Section measurer is now flown to Australia to make sure that the plug measures! Next, the three hulls are sent back to California and are awaiting measurement once rigging is completed. How do you like the sound of my job now? I may have to poke my finger into the chest of one of the world's richest men and tell him he has a great boat that it isn't a 505!

Now it's probably true that with all the expertise that Phillippe has at his command, he isn't going to buy a boat that doesn't measure. Maybe of just as much concern might be hulls from two other builders, both developed from the original Australian plug of years past. As it turns out, the Pegasus hulls all measure in within 1/2mm from the plug to the finished product - amazing!

Trick Geometry:

Clever owners are finding cute ways of getting incredibly long centerboards into the

case legally. Apparently the Kahn (Pegasus) boats are deckstepping the mast so that the front end of the board can go beneath it. I want to see this because I cannot understand how they plan to control mast bend. (*ed. Perhaps they are trying this now, but the boats at worlds were stepped low, but on a longitudinally sliding step. The mast was slid forward for measurement purposes. To be fair, they didn't have a ram, and apparently used the sliding step for lower mast control also.*)

Now remember that, at this stage, all this is rumor.

We have a plan for measuring all the boats ahead of time. I hope that it works.

So, the Pegasus boats have been measured and, guess what, they want the class to redefine the centerboard case as being 200 mms longer than heretofore. Moreover, the center thwart is too wide. Now this may not change the performance of the boat much but remember that the thwart width was just redefined by the class last year after the same builder had built it, what? Right—too wide! This new controversy has spurred a discussion on exactly how the measurement needs to be taken.

Next:

How many sails are we measuring? 300 to 600! That is, everybody. Are you kidding me? What happened to the good old days when most of the class showed up with already measured sails? Apparently at least two sail makers are not even sending up their last 50 to 100 suits until the actual day of measurement, they are so busy. I am truly impressed by the affluence displayed in the class.

Fortunately, Paul has a pretty good handle on the methodology so it may all work out.

Reine Anderson and his wife Birgitta are arriving from Sweden on Saturday before the N.A.s almost at the same time as the International Secretary, Chris Thorne. We shall meet at SFO, then talk it all out Sunday morning. Reine and I have raced against each other in the 1971 Santa Cruz Worlds. Reine and his partner Stefan, had the distinction of finishing the regatta with a dislocated shoulder and broken arm respectively! Otherwise, they may have won it. Pip and I have our own unlikely reasons for failing to win that one.

They all arrive and off we go to Santa Cruz. We see the measuring (and everything else) tent. Paul's arrangements are great. I act the

grand old man of measurement and keep my mouth as shut as I have ever been known to do. We view and admire all the games that people have played with centerboards, transoms, thwarts and centerboard cases. We are astonished at the intricacy and inventiveness shown. We are amazed that the weighing in shows older boats needing up to 30 lb of lead correctors whilst the newest boat there, built almost entirely of carbon, needs NONE! We quietly discuss how that can be but conclude that it will be the class's future problem as to where and how correct weight is achieved. We never found any weight placed incorrectly even though some boats had "lost" correctors in transit from their containers to the boat yard! Always managed to find them though. I spent more time on my back under boats measuring where the centerboard's leading edge was than I had been led to expect. Incidentally, there MUST be a better way of controlling the centerboard's length and size than exists today! We gazed with astonishment at transoms flat enough to look as much like an International 14 as a 505. Yet they measure! Our tolerances are generous are they not?

Bret Van Munster tells us that his boats are costing about \$60,000 AUS now, much of this in equipment. He wonders whether we should not stop worrying so much about lightness as limiting the ways we rig, limiting therefore the expense. I think his contention is that, as a builder, he could build much less expensively if allowed to go as light as is safe but with a limited range of equipment a la 49er. Of course, the uncharitable might say that if Bret wants to build 49ers, why start on 505s? Yet, I think his points should not be summarily dismissed.

The measurement is finally done. All the numbers are on the sails in the right size and place. The spare spars are ready for the big blow we all expect. Loins are girded. Wet suits are donned. Sadly the wind doesn't blow 'the ax off the handle'. I tell myself that even I might have lasted through this one! Joke!

In the end the best team won. They were fit, well-prepared in a beautifully constructed boat and they knew all the percentages that Monterey Bay off Santa Cruz offers.

I congratulate and envy their youth and ability.

As for me, the Regatta Measurer; I got away with it, didn't I—or did I? ☺



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Board Development On Pins And Needles

By Mike Martin, USA 8714

Centerboard development in the 505 class has surged over the last five years. Each year someone constructs a board that is longer and narrower (i.e. of higher aspect ratio) than the year before. At the 2003 and 2004 worlds we have seen extreme cases that use interpretations of existing rules to circumvent their traditional intent. In Malmö there was a board that could not fully retract unless the mast was removed (*ed—this board was used by Krister Bergström*). Noting this loophole, the IRC quickly reacted by changing the wording

author, and do not represent the findings of the ITC or a prediction of how the rules will change.

Before we change any rules, we must establish what we want the rules to accomplish.

Most importantly we want the rules to give a clear explanation of what is and what is not allowable. Measurement rules must be clear and concise and leave as little room for interpretation as possible. The worst situation is when two measurers allow for two different interpretations of the same rule.

is healthy for the class. Rigging developments over the past 50 years have made the boat faster, more versatile, and easier to sail. Development has widened the range of competitive crew weights and the wind strengths that the boat can perform well in. Development is also important for class growth, and the fact that the 505 has kept pace with modern marine technology has been a positive influence. Without development, 505s would still have antiquated wooden hulls and spars.

Why limit development? The simple answer is escalating time and expense.

“Before we change any rules, we must establish what we want the rules to accomplish”

of the centerboard rule to reflect the true intent (i.e. the mast had to be located in the step when measuring the board for fit in the trunk). Then in Santa Cruz, an extreme high aspect board was developed by Pegasus Racing using a clever “yoke” mast step that allowed its position to be longitudinally altered very far forward to create clearance for the head of the centerboard. These developments raised questions. Were the current centerboard rules sufficient?

Adding to the controversy was the resurgence of the use of centerboard lifting pins, and subsequently the issue of how to measure the most upright position of a centerboard. The International Rules Committee (IRC) provided an interpretation of the rule and measurement guidance on this issue prior to the 2004 World Championship.

The International Technical Committee (ITC) has decided to examine the centerboard rules in more detail and possibly make a recommendation on future rule amendments. The opinions expressed in this article are those of the

Secondly the rule must be relatively easy to measure and enforce. For example the rules do not dictate sail area. This would be very difficult to measure with variations in profile and sail depth. Instead the rules describe specific values of measurements taken at known locations.

Finally we want the rules to allow room for limited development in certain areas. This is where we get into shades of gray. What is the proper amount of development? Before I go any further into the rules issues I will go off on a tangent and briefly discuss development.

The 505 class has always claimed to be a developmental class. In reality, the 505 is a limited developmental class. A fine example of a true developmental class is the Moth Class. With no restrictions on hull shape or appendages these speedsters are now sailing completely foil-born. I think that we can all agree that none of us want the 505 class to be developmental to this extent. Before we determine what shade of gray that we wish to be, we should examine a couple of basic questions.

Why develop? Development in sailing

Each time someone has a clever idea that enhances performance, everyone who wishes to keep pace must buy and rig something identical if they want to remain competitive. Left unregulated, the boats would become even more complicated and expensive than they are now.

The right amount of allowable development is subjective. Each development and its impacts must be examined on a case-by-case basis. Generally speaking, the following factors should be reviewed when determining whether or not to allow any given development:

- Does it make the boat easier and more fun to sail?
- Does it make the boat faster?
- How much does it cost to implement?
- Will it make existing boats obsolete?

Back to the rules concerning centerboards, the two big questions being tossed around are:

- (1) Should we limit centerboard length?
- (2) Should we ban centerboard lifting pins?

Applying the above criteria to these questions, I arrive at the following answers:

Extreme High Aspect Centerboards

••• Do they make the boats more fun to sail?

As one of the primary developers of high aspect boards I could be a bit biased, but unfortunately I have to admit that they do not. The boat may perform better, but it is unnoticeable to the sailors.

••• Does it make the boat faster?

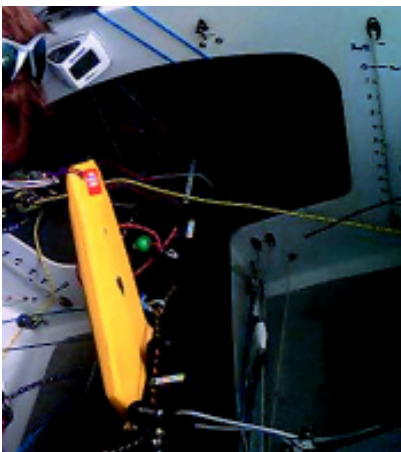
Yes, but only very slightly. In two-boat testing we have found only a slight edge, but if you look at the top finishers in the worlds since 1999, they all used high aspect boards.

••• How much does it cost to implement?

The answer depends on how far you take development. The cost of a new board is less than the cost of a new main sail, and it lasts a lot longer, so HA Boards are generally affordable in the grand scheme of things. Until recently the cost to install it into the boat has been very low, involving only drilling a new centerboard bolthole. The high cost only shows up when you have to start making major modifications to the CB case and mast step. At this point the cost can go up astronomically.

••• Will it make other boats obsolete?

Again this depends how far you take it. If you are just moving the bolthole, then no. If it requires building a new boat, then yes.



Lifting Pins

••• Do they make the boat more fun to sail?

For the average team probably not, but the discussions I have had with smaller teams make me believe that they do. They make the boat controllable in conditions where it otherwise would not be. This makes the boat more fun for a wider range of people in a wider range of conditions, and that is good for the class.

••• Do they make the boat faster?

This is hard to determine. If you ask me, the answer is no. That is why I have not installed one in my boat. However, if you ask Mike Holt and Carl Smit, they swear by it. I do believe it will speed up smaller teams in big breeze, thus equalizing the fleet. Again, this is a good thing.

••• How much does it cost to implement?

Using the same comparison that we used for the high aspect boards, installing a lifting pin costs less than a new mainsail and lasts for the life of the boat so overall the cost is low. It does add even more complexity to an already complex boat.

••• Will they make other boats obsolete?

I would have to say no. First I think the performance gains are questionable. Moreover, any boat can be converted to have one.



When I look at it with these criteria I come up the following conclusions:

Limiting board length is the simplest way to prevent radical changes that will require major and expensive modification to the boat. As I stated previously, the rules need to be clear and without room for multiple interpretations. Creating a maximum length would be the simplest, clearest way to control this development. I have designed our boards to be as long as possible in a maximum length case, and the most projection beyond the keel band that we can achieve is 57.5 inches or 1460mm. There is probably someone more clever than me out there who could probably find the room to optimize a bit more, and being a fan of round numbers I think that the limit should be 1500mm.

My gut reaction is to ban lifting pins, since it just adds another complicated system to the boat. However, after looking at it using the criteria above, I believe it is best to leave them legal.

There is one other issue that needs to be addressed. When you have a high aspect board with the bolthole well forward of the leading edge in combination with a lifting pin, you get into a situation where it is very easy to violate the bolded section of Rule # 6.2 which states:

“The centreboard shall fit within the centreboard case not extending below the bottom of the hull when fully raised. The trailing edge may project above the centreboard case top when in the raised or partly raised position. No part of the leading edge which is more than 300mm from the tip and is capable of protruding below the hull shall be capable of being raised more than 200mm above the bottom of the hull.”

This rule was written to prevent dagger boards but did not anticipate today's high aspect board geometry. I think that this rule needs to be clarified so that its original intent of restricting dagger boards is obvious, and future complications with the combination of high aspect boards and lifting pins are averted. ☹

BackTime



A very young Pip Pearson is surrounded by an even younger hoard of children in the Surtees home during the Christmas of 1966.

TANK TALK

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