The Top 10 San Diego Etchells Tow Tips from the Tow Vessel view point

1. Regatta Time – The RC sets their watches to "GPS" time, which is synchronized by satellite. GPS times will always display the accurate minute and second. The hour may be off if the unit is set for some other time zone or not updated for Daylight Savings adjustments. You can obtain the same accurate time (within one second) by telephone at 619-853-1212.

2. Tow Time in the SIs – It says "Tow will commence at 0930". This means the Race Committee will untie the RC vessel Corinthian and leave the dock at approximately that time. They may sound three short horns when departing (Rules of the Road signal for "Vessel Backing".) Depending on how many Etchells are in the Star Hoist area (between B / C Docks) and how quickly those boats tie in to the tow line, Corinthian will be rounding E dock on its way to I dock by 0945. At that point, they usually sound one long horn – ODW signal for get your butt down to I dock because the tow is there.

3. The RC Tow Lines are yellow 5/8 " Spectra with 3/8" galvanized pear rings to tie into. The spacing between rings is 32' with 15' between the first ring and the stern of Corinthian. The tow lines were designed with the idea of having a boat tie into either side of the metal ring.

The Etchells TOW LINE (25 meters/81 feet) and should be used INSTEAD OF their anchor line (75 meters/243 feet). But, the most important thing is that all the boats use the same length tow line. Each boat should have approximately 40' of line between them and their tow point. The skipper should steer with approx. 10' between the tow line and the side of their boat. Any more of either and you are applying pressure elsewhere in the big picture.

4. PLEASE DO NOT ASK TO SIDE TIE ON CORINTHIAN! Cleats on the side of Corinthian should NOT be used to tie in – especially if there is a boat on the first tow line ring. Otherwise, the side tie boat has to tow at almost a 90 degree angle to the tow line which puts lots of torque on the cleat and further restricts the RC helmsman's ability to maneuver. Boats tied up on the side tie further restrict the first boat on the tow's ability to maneuver.

5. The Tow - Big Picture: Boats on the end of the tow need to be aware of how they impact the boats at the front of the tow as they have the greatest influence on the tow line. They should steer slightly outboard of the prop wash of Corinthian. Steering any further outboard than that causes the boats forward on the tow to increasingly steer away from the tow line being pulled toward their transom and rudder. At the front of the tow, that can amount to an extreme tow line angle approaching 90 deg. to the towline. If there are no boats tied into the middle of the tow, this effect and develop quite readily. Another 'cumulative effect' phenomena is the torque on the transom of the tow vessel eventually requires considerable helm to overcome. Even on Corinthian! This produces additional stress on all points and reduces maneuverability.

6. The RC Approach To I Dock: Corinthian approaches I Dock and the Etchells tow pick up differently depending on two things: the wind direction and the amount of boats anchored in La Playa Basin.

In establishing a one design weekend tow, the Corinthian will pick up any boats at the Star hoist, located between B and C dock, first. This requires one tow line be deployed. It is typically the PORT tow line, but it can vary. Read on.

Corinthian will then proceed around the club to I Dock. The direction they approach from will be a function of the wind direction and the location and density of boats anchored in the basin.

Rule of thumb - If the wind is left of 220, they will probably circle around by Southwestern and approach I dock from the right. If the wind is right of 220, they will probably come alongside the SDYC docks and approach I dock from the left. If there are boats blocking a clean exit in either of these directions, they'll just make something up. Bear with them.

7. How you can help the 'Theory' - The theory is - The RC will try to approach I dock so that the 'away (from I dock)' tow line is deployed first. It is helpful if a number of Etchells paddle out into the basin BEFORE the RC

boat arrives. Corinthian will try to split those Etchells already on the water with the tow line so that so everyone is not loading up one side of one tow line, or waiting for the RC to pass and then paddling like mad (or not) to try and catch up, making all the others wait. The first few boats that paddle out into the basin get an outside spot on the 'away' tow line, and (hopefully) several (many if it is a crowded weekend) of the others already away from the dock can hook up to the *inside* of the 'away' tow line to balance it.

When the 'near' tow line is deployed, boats between the two tow lines have the option of either tow line. The remaining boats just joining the party can easily hook into the outside of the 'near' tow line. When the second tow line is deployed, whichever boat picks up the end of the line must assist the RC in stretching the line out so others can tie in. The RC's challenge is to stretch the tow line out without motoring too far past the dock (and paddling Etchells) or having to begin the turn in the basin, thus exposing the RC boat and tow subjects to leeward drift.

8. Hook and Ladder Concept – It is worth repeating that the boats at the back of the tow have a great influence on the tow - especially when leaving the basin. Those tied into the end of the tow effect us just like the guy in the little cab in the back of a long hook and ladder fire truck who steers counter to the turn direction to help the long trailer get around corners. Except that our 'trailer' is about 300' long. The back of the tow must anticipate a turn and steer AWAY from the apex so that the middle of the tow does not get sucked into the object (anchored boat) that we are frequently trying to get around as we leave the basin.

9. The D Flag - The Corinthian usually displays the "D" or delta flag when towing. It is a square yellow field with a solid blue bar across the middle. This means "This vessel maneuvers with difficulty" in code flag parlance. We will try to give you warning about kelp, and we may periodically make zigs and zags while heading out to the course to avoid kayakers, anchored fishing boats, hard charging sport fishers and other boats hurrying up or down the bay.

10. Going Home. The final race will usually finish at the mark nearest the harbor. For example: generally a down wind finish if the breeze is left of 240, or upwind finish if the breeze it right of that. If it is really light, and a tow may be necessary, stay near the RC boat or near other Etchells. If the RC has to tow you in, the thing that takes the GREATEST amount of time is zig-zagging all over the roads and the bay seeing who wants/needs a tow and waiting for them to get their lines ready.

We're having fun now.

The Top Ten San Diego Etchells Tow Tips from the Sailors Viewpoint:

San Diego is such a paradise for racing Etchells sailboats. Perfect weather, perfect wind, perfect water... but then there's "The Tow". The Tow ranks right up there with kelp, and going the wrong way as events which can most easily spoil an Etchells sailor's day. The tow can be easy, too. It's the only way for most boats to get out to the starting line on time. When you get out there, you want to be relaxed, confident and ready to go racing. Here are a few tips to make your towing experience easier. While these tips do apply to other boats, the list was written especially for Etchells, starting with Tip Number 1.

1. **Tow Line.** The Etchells Class One Design Rules specify two lines be carried on board, a 37x10mm meter anchor line and a 25 meterx12mm tow line. The key is to have all the boats with their tow lines the SAME length. TOW WITH THE TOW LINE! This line should be polypropylene, that cheap yellow floating stuff, and three strand, so it looks like old rope, not braided. Three strand line stretches, which is what you want in a tow line. Use a ½ inch size, as the 3/8 may not measure in. The floating advantage is key, and this line will not absorb water sitting in your bilge while you are racing.

2. **Preparing the tow line**. Designate a tow line handler. That person will need to make sure the tow line doesn't have any kinks, knots or other problems, and they should do this early, too. Maybe while paddling out to the tow, but even better, do it at the dock. At this point the foredeck should be clear, the line uncoiled and laid out, perhaps in the cockpit, and the line handler can already bend one end of the tow line on to the mast. We put this line as low on the mast as possible, perhaps even under the vang, with the blocks up and the mast securely chocked if necessary, and a fair amount of backstay on, so the mast does not pump. This first end should go around the mast twice and then finish with a knot you are comfortable with. Two half hitches, a bowline, a bowline with a quick release, it's not that important as long as it will not slip under load. The other end of the line should be within the line handler's reach. At this point, if not before, the line handler should put their gloves on.

3. **Paddling out to the tow.** Leave the dock early. 'Nuff said? I didn't think so. The line handler can also be the paddler, so now get paddling out to where the tow boat is going to be. Here comes the tow boat, which trails a line behind it. The line carries metal eyes spliced into it at regular intervals. If there are a lot of boats, the best situation is for boats to tie into the line, one on each side on each ring. If there are not so many boats, the ideal situation is to have boats alternate rings, one on each side. The paddler's job is to work hard at this point to get the boat to a position the skipper is comfortable with. Eventually the tow boat will drop a second line down and create more positions for more boats. The paddler has the best vantage point, but communication between driver and paddler is critical at this point. Often the paddler's best choice is to paddle around the end of one line and up the middle between the two ropes. It takes a little more work, but this can be the place with the most room once the tow gets up to speed. With The Tow, just like at marks, room is good. Any boat already on the line can give you a spot on their mast too. This works fine, especially toward the end of the tow, as long as the towing Etchells has its mast securely chocked.

4. **The Tow Boat**. The tow boat driver has a hard job. He is piloting a large powerful boat, in a crowded anchorage, with limited steerage and a lot of windage. He is waiting for 20+ boats to get themselves sorted out and tied on. (Re-read #3). Etchells do not accelerate well under paddle power, and they stop even worse. For this reason, it is the tow boat will KEEPS MOVING...Very slowly, in and out of gear perhaps, to keep some way on. Let the paddlers do their job to get on to the tow. (Re-read # 3.) But the Tow boat can only go so slow, and only so far before it either has to begin a turn to avoid the beach or anchored boats, or the tow line is past the dock and paddlers have to chase it. The longer you take to get out into tow position, the longer the RC will have to luff in position, the more likely you will get mixed up with your fellow Etchells.

5. **Line Handling.** Once you have identified a spot, and you have paddled there, loop the bitter end of the line through the eye and back to your boat. Leaving just enough to go around the mast (again we go twice around), finish off with a knot like before. It's re ally nice if this one can be untied under load, just do a bowline, but finish it with a bight instead of the bitter end. Congratulations! YOU ARE ON THE TOW. Pass the paddle aft (see #6). Stay alert. The work isn't done yet, not by a long shot. At this point the line handler should keep the tow line as short as possible, so that the boat takes up minimum space as the tow boat idles around. Other boats

will come to the lines and get their spots, and some fending will be necessary, but the line handler just manages the tow line. There are only two management functions at this point, PULL the line (get some way on), and SLACK the line (coast). With care, the brakes will not have to be applied. If on the outside of the tow line, the Etchells driver can help by steering continuously wide so as to separate the two tow lines and create space in the middle.

6. **Damage Control.** The third hand on the boat now comes into play. Sitting somewhere near the traveller, this person should get the paddle. They have only one job, well really two. Protect the rudder of the boat from the tow line, and the tow line of the nearby boats, and protect the backstay. It's a continuous job, until the tow gets up to speed and the third hand can relax.

7. **Letting the Line Out.** As the tow starts to speed up, the line handler should start paying out line. If at all possible, the line should be paid out to its ultimate point, The paying out of line should start with the boats near the end of the towline, and once each boat has dropped back, the boat in front of it can drop back, to a comfortable separation. The perfect situation is when all boats are using identical tow lines. And the One Design Rules help us out on this. It's obvious who is using a long line. They basically mess up every boat behind them on the tow, and cause headaches to the drivers of the boats near them. With identical lines, one big variable is eliminated, and the tow boat can get up to speed in a comfortable manner for all concerned.

8. **Picking a Driver**. Once the tow has been assembled, and the tow boat up to speed and all lines paid out, the line handler and the damage control crew can start gearing up, and swapping stories and whipping lines. The driver is just getting started. Driving during the tow can be a pretty draining experience, what with swells and wakes and the close proximity of many other Etchells. It's often a good idea for the driver to NOT be the person who drives during the race. Many people have been worn out on the tow before they even get started racing. And that's not fast.

9. **Driving.** Driving on the tow is pretty straightforward. You should ignore the direction of the line and pay attention to the tension on the line. More tension (PULL on the line) equals more boatspeed, and less tension (SLACK) slows the boat down. The driver's job is to keep the tension on the line, and thus the boatspeed, approximately constant. The driver does this by heading up to the tow line and falling off from the tow line with each wave, and each tug from the tow boat. Stretchy line is more forgiving, but there is still a lot of attention required. It only takes a few minutes to get the hang of it, but the driver can never really relax on the way out to the course. For those boats on the outside of the tow, you want to maintain about a 10’ gap between your boat and the tow line. Resist the temptation to constantly bear away from the tow line as this will draw tow away from its intended position and impose on the boats at the front of the tow. If the tow line appears to have a significant bend in the middle, the boats in the back of the tow are doing their best to maintain position but the boats in the middle are applying lots of tension. Boats tied in the middle of the tow line counter this nicely.

10. **Arriving.** You made it, the tow is over. If you are on the end of the tow, you can decide what time this is. One advantage that you have at the end of the tow is that you can drop off any time you think is right. Watch out for boats dropping their tow lines in front of you. If the breeze has filled in, you can let go even earlier and get some pre-race tuning and numbers. If there isn't much breeze, wait until the tow boat throttles back and then drop immediately. The tow boat will go at reduced speed until all boats have dropped. Take a moment before you release your tow line to see that it is not twisted. Sometimes a line gets wrapped and will knot at the tow ring. Then there is a little more line handling to do. But usually the boats can all drop off and now it's time to go racing! Bring your line on board, coil it carefully, swing it to dry it out, and stow it near the mast butt. Set a sail and check the wind. Get your numbers.

    You know the drill.

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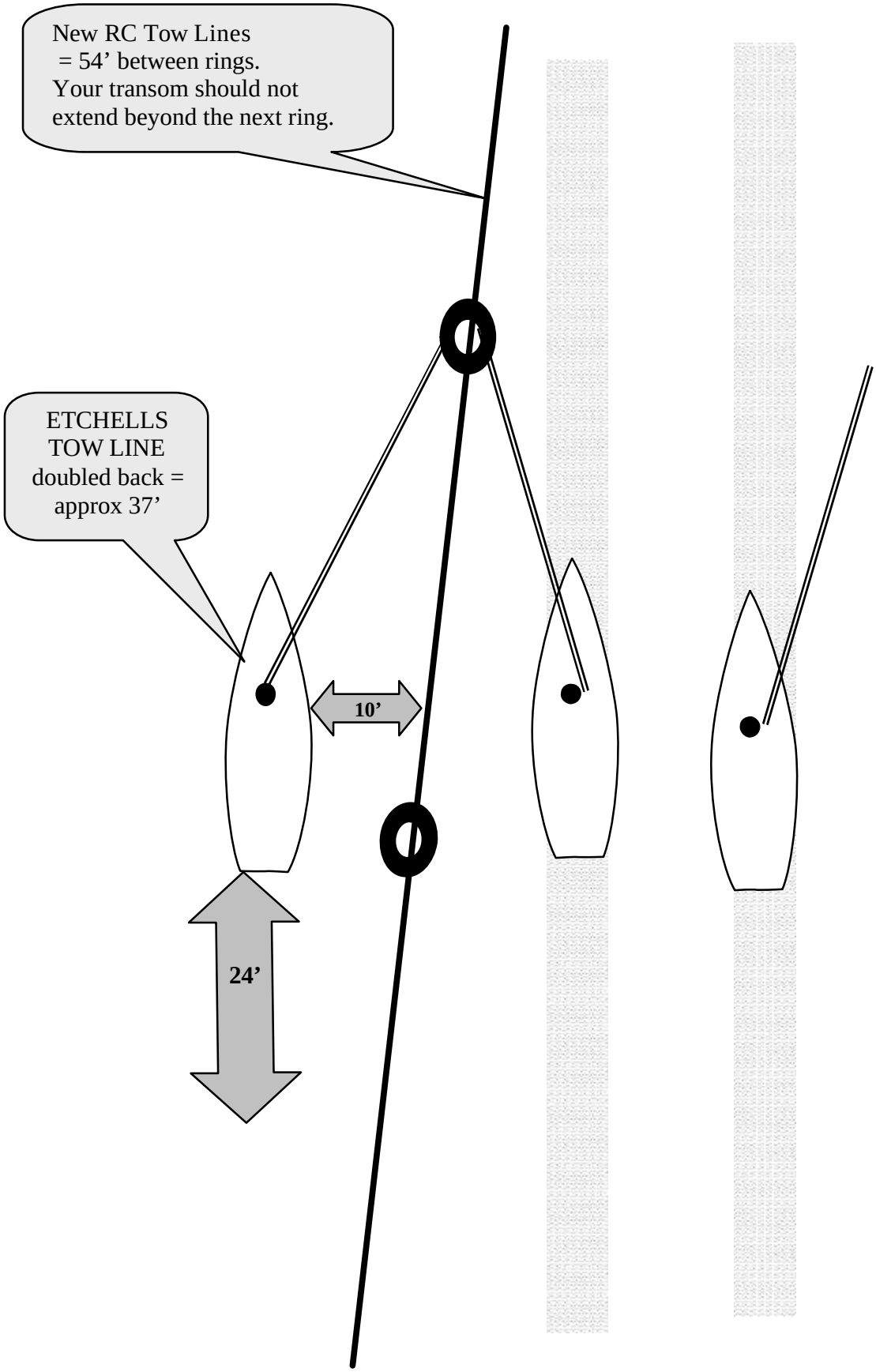
New RC Tow Lines
= 54’ between rings.
Your transom should not
extend beyond the next ring.
ETCHELLS
TOW LINE
doubled back =
approx 37’
10’
24’