Coxswaining

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INTRODUCTION

The following is a compendium of lessons learned over a quarter-century of putting people in coxed boats and consulting, learning from, sharing with, and teaching peers. This is less a cookbook for 16 year-old coxswains, and more a set of thoughts to help coaches and adults learn some skills – and how to disseminate them to others.

The focus may appear to be on rowing racing. Racing is an incredible tool to hard-wire skills. The thrill and pressure of lining up next to another boat, the fear of being made to look foolish in a race, the implicit pride of doing a job well while representing your team/ club/city is a magnificent motivator. However, it means nothing. Races are by definition contrived. The true value racing and all of the skills acquisition it entails is proved the one time that a cox and a crew are in trouble and can draw upon those skills to get to safety.

Each time a cox takes a crew on the water, they are, by definition, in harm's way. The scariest thought to anyone overseeing a club or crew is that they might have failed to adequately prepare their crew for the unexpected. That preparation includes skills and courage, but perhaps, most importantly, confidence. Confidence for an open water crew comes from an understanding of what is going on, in the boat and all around them, and a thorough sense of the deep well of options upon which they can draw.

BASE LINE EXPECTATIONS

- Boat handling skills
- Understanding of the dynamics of the boat and how to move it well
- Empathy for the crew, and a clear understanding of what it is your demands
- Understanding of the local conditions
- Solutions to potential problems

SAFETY INFRASTRUCTURE

No rowing program anywhere should be operating without a well defined and universally accepted safety system. Any well thought out system will do, but something must be in place.

The components are as follows:

- Clear, user-friendly Log sheet stored and posted in a predictable place
- Data on the log that fully articulates who is in what boat, voyage destination, time frame, and the safety back-ups with their data
- A clear return time
- A person, a designated worrier (DW), who knows where and when and who can and will respond in the event the boat is overdue
- A safety system that will respond if the worrier calls in a "Boat Missing" to the proper authority

This or some logical variation must be as much a part of the daily routine of the rowing club as oars and lifejackets. Coxswains and crews should test the system, for

example, practice catastrophic events. DWs must be trained and have a set of protocols posted for ready access. Test your system and try to make it fail.

LAUNCHING AND LANDING

Beach Launching

Fully half of the rowing craft in the world launch off the beach.. The crews in the Scilly Isles have nifty little dollies that they roll up and down long sloping beaches. The crews in Hull have a sandy, steep beach and use log rollers. Applied physics! The cox must take unqualified control of the crew when moving up or down the beach, as the boat is at real risk of veering off the rollers and seriously harming the planking. The cox's job, as on the water, is to use vocal tone and commands to keep the crew engaged with the boat-hauling process. Crews should keep both hands on the boat's rails at all times while moving up and down the beach, and the boat must be kept balanced on its keel to avoid potential damage to the hull. As the boat approaches the water, the cox must slow the rolling process, as gravity can really pick the boat up and make it fairly uncontrollable. After dampening the speed, the crew should slowly and deliberately slide the vessel into the water until about 80% of the hull is afloat. Any rollers still under the boat should be removed. Then, the bow rowers should stabilize the boat as the rest of the crew boards, taking care to walk through the boat in this at-risk, amphibious state with great care. While the cox installs the rudder, the crew sets the oars, either by tossing or "slipped". After counting down, the cox gives the order for the boat to be pushed off the beach and fro the crew to begin backing water. The bow person shoves off, then leaps aboard, grabs the bow oar, and joins in.

Landing on a beach

The cox should approach the beach very slowly angling across the wind and turning at 90-degrees as the boat nears the beach. The boat should never run up onto the beach, but should, at most, drift onto the shore with a gentle nudge. The cox should hold to a dead stop just before the bow touches, and the bow rower should hop out, simultaneously lightening the bow and catching it. The crew should toss or slip oars, file out smartly, and draw the boat as far up the beach as necessary to assure its safety before setting the rollers. Remember, the boat is always vulnerable on the beach.

Launching from a float

The cox should assign seats, get the crew settled at their stations, and get at least the off side oars set in the oarlocks. The cox then orders the spring-lines taken off, leaving the bowline looped around the cleat. Simultaneously, the cox has the bow-line flicked off the cleat and dockside bow person push the bow out, quickly lock the bow oar in, and stroke the boat off the float. The cox can be either in the boat or on the dock paying out the stern line until clear of the float.

Landing at a float

Always approach the float more slowly than you think necessary. Often a boat has a following wind, and coxswains can easily misjudge speed. Have the offside rowers unlock the dockside rowers' oarlock gate. (One can row very adequately with an unlocked oarlock, but cannot hold water as the oarlock will bend and repel the oar.) The

crewmates caring for each others' oarlocks, aside from being a small unifying gesture, prevents people leaning across and upsetting the boat as you approach a crucial moment. As the boat nears the float, when the momentum is right, the cox calls for the dock side rowers to toss their oars and the off side rowers to either row or hold, depending on how the boat is carrying toward the float. The cox can counterbalance a rower's power with the rudder to make forward motion, if need be. The off side rowers should reach out of the boat and grab the float to bring the boat to a halt while the cox scrambles out and gets a stern line on a cleat. Once the stern line is secure, the cox takes the bow line and the boat is in. Crewmembers should toss the remaining oars, stow them, and install the springs and fenders. Never leave the boat until it is put to bed for the night. Always leave the boat as if you will be gone for a month – and in perfect shape for the next crew.

STARTS

Normal Start From a Dead Stop

To overcome inertia in a rowing boat, to go from 0 miles an hour to some speed, the cox must draw the rowers together and create power. When inert, the whole weight of the boat and the rowers presents quite a load. To properly engage the crew as one to generate that power, the voice of the cox must act as a prod, and the predictable cadence of the starting commands must give them the timing necessary to hit the water together. "Sit Ready. Ready All. Row!" is one starting sequence that leads up to the action word, actually the action letter, the R of row. The Naval sequence is a two-step command, "Give way. All!" Regardless, it is the predictable, comfortable, unhurried sequence that focuses the crew and allows them to take the strain of the boat until it gains momentum.

Racing Starts

Racing starts, whether they are initiated by the cox, or by a race official, are exactly the same as normal starts, only much more dramatic. Whereas a normal start involves the crew using timing to overcome inertia, a racing start, whatever its sequence, is designed to send explosive power down the oars so the boat will reach hull speed as quickly as possible. There are numerous philosophies about and approaches to the start sequence: "Half stroke, half stroke, three quarter stroke, full," or "Full, full, full, full" (a Cornish start), and many other variations. The sequence doesn't matter. What does is the timing of the crew and their focus in the midst of a massive adrenaline rush.

STEERING

Steering with a Rudder

Rudders are controlled with either a yoke or a tiller. The former works by tugging on the rudder lines attached to the yoke. When moving forward, pulling to starboard turns the boat to starboard, pulling to port turns the boat to port. A tiller works by pushing the tiller (handle) away from the desired direction: Pushing to port turns the boat to starboard, pushing to starboard turns the boat to port.

Steering with a Steering Oar

Steering with a steering oar has the same dynamic as a rudder with a tiller. In addition, a steering oar can be stroked and/or backed for added power during a turn. Steering oars

are usually used in a standing position often with the cox's feet braced against the hull for added traction.

Stalling

Rudders should be used subtly, as little and as infrequently as possible to avoid stalling the boat and losing "way" or momentum. "Steering small" or pro-actively in small bites is a desirable way to use a rudder, requiring a great deal of attention to course. Radical or emergency turns with the rudder "hard over" can effectively turn a boat quickly -- with the cost of total loss of way.

Steering With Rowers

Steering with added or subtracted power on one side of the boat is a very effective way to turn with minimum loss of way. The direction in which you are turning is called your off side. Taking the offside forward-most rower out of the equation has immediate effects on a turn with minimum loss. Dropping rowers off sequentially, bow to stern, and concurrently powering up on the other side while lightly fine tuning the turn with the rudder is perhaps the most effective way to turn a rowing craft, particularly one with a long straight keel. The name for dropping off a rower or rowers is "airstroking". In an airstroke, a rower takes a complete stroke in time without hitting the water. This maintains the balance and rhythm of the crew and assures that an airstroking rower can return to rowing seamlessly. Entire sides often airstroke when maneuvering in tight situations. In the event that an entire side is airstroking and the other side is rowing vigorously and the rudder is in play and the boat is not yet turning sufficiently, the cox may call for one or more offside, airstroking rowers to hold water. This is a very effective strategy under those circumstances, but the cox and rowers need to remember that doing so begins a stall. To minimize the stall, the rearmost offside rower is the first to hold water and only rowers to the midship of the boat should join in. Any rower forward of midship does more harm than good holding under these circumstances as his hold interferes with the bow swinging in the desired direction. It actually fights the turn by pushing against the bow of the boat. An entire side should hold under these circumstances only to avoid a collision.

Steering While Backing

In the event that a boat is maneuvering backwards, all the rowing rules mentioned above apply while backing water. The major difference is the action of the rudder and of the cox plying the rudder. A rudder going backwards should be pointed at the desired direction. The rudder leads the boat around a turn going backwards. There is enormous torque on a backing rudder, too much to be controlled by rudder lines on a yoke. A cox using a yoke should turn towards the stern and steer the yoke like a motorcycle, dropping rowers off starting at the stern towards the bow and, to accelerate the turn, having the offside bow rower first hold water, then stroke normally. Before engaging the on-side rowers to finish pulling a boat into forward motion, let the boat run out for a second to avoid arm strain and possible gear damage. A backing boat seems to pick up a significant amount of momentum. (Remember, the "on-side" and "off-side" rowers switch mid-way through a backing turn.)

Steering out of Trouble and Dealing with "the moth to flame" Syndrome

Boats traveling side by side seem to be drawn inexorably towards each other. This is referred to as the "moth to flame" syndrome. Is this a matter of physics or driver error? It is such a common phenomenon that it is easy to imagine that it has something to do with bodies moving through the water and differing pressure. Regardless, the cox, particularly the cox racing towards a distant mark, must be aware of the phenomenon, fight it as it happens, and understand how to respond when oars begin to overlap. Of equal importance, the rowers must understand how to respond, and be able to do so spontaneously and in conjunction with the cox.

a. If oars overlap it is incumbent on the overlapping rowers not to stop rowing. A loss of power on the affected side only accelerates a collision. Off-side rowers on the other hand, particularly those toward the bow should ease up, helping the boat, the cox, and the on-side rowers to resist the pull.
b. If a collision occurs, rowers away from the entangled side *must* stop rowing. The excitement of a collision is often dramatically exacerbated when excited on-side rowers continue stroking and drive the boats even harder together. Be tuned in. Understand the dynamics of the moth. Think!

BEARINGS

How to Find a Straight Line and Hold a Course

Bearing is a word for the process of identifying marks in front of and/or behind the boat that a cox or helmsperson uses to ascertain where they are on a racecourse, a passage, or any circumstance other than a leisurely drift. Since wind and current seek to throw a boat off course, the cox must have at least two fixed points with which to identify drift and correct accordingly. For the sake of discussion, lets use a straight line. To steer a straight line towards a fixed point, a cox should try to find a second point, either behind the target mark, or if that is not available, aft of the boat. The cox should imagine a straight line and keep the second point on that line. If the second mark appears to move, in reality it is actually the boat that is moving relative to the two marks and the imaginary line. The boat can appear to be pointed at the desired mark and yet be dramatically off course. Remember, a bearing is based on *two* fixed points and your boat's course relative to them.

Ferrying

Every body of moving water has a few common characteristics, and transiting a body of moving water requires some special, universally applicable skills. Think of a body of moving water as a river. Within that river are a number (5, 10) of separate streams moving at different rates. Usually, the central streams move fastest because there is little or no friction on their bottoms, while the streams further from the center, closer to the shore, begin to drag across the bottom, slowing down in direct proportion to their depth and proximity to land.

A natural phenomenon that always seems to come as a surprise is the "reverse eddy." The river-streams generally have two profiles, the "cut" shore and the "drop" shore. The cut shore is the concave curve and scours away debris. The drop shore is the convex curve and tends to slow down and any debris in solution tends drop or deposit. Almost

always, the outermost streams of the river travel in the direction opposite to the entire rest of the river. In the case of Hull Gut, our local "river," the main flow travels at up to 2 knots while the reverse eddy travels at about half that speed in the other direction.

Most areas have a challenging body of water with which to work. In our neighborhood, a cox is routinely required to transit Hull Gut against the flow of the current, often with wind and standing waves as powerful factors as well. With most crews this is challenging but possible. Every cox must know how to maneuver across this current safely to operate in our arena. The upstream ferry is an adaptation of kayaking skills that asks a coxswain to point and hold the bow at a 45-degree angle to the flow of the current and have the crew row into the current. This technique allows the boat to move forward in equilibrium with the flow. The boat gains no ground upstream, but moves quite effectively across the flow – across the "river". In this situation, if a cox drives directly for a point on the opposite shore, the boat is swept out on the current with little control. By ferrying, and moving across the flow, the boat generally travels at a 90-degree angle to the flow and hits the shore (or the reverse eddy) at the intended mark. The 45-degree is not a strict number. By taking a bearing on a fixed point at the beginning of the ferry and by using the destination across the current as another bearing, the cox can control the ferry and move easily to the desired destination. The bearing points should remain motionless in reference to the land behind. If they seem to move, the boat is likely being swept out. Strong currently demand aiming upstream a bit more, while lighter currents allow a shallower angle. The goal is to finesse the ferry, avoiding exhausting the crew in a fruitless uphill hump against the current.

BROKEN EQUIPMENT SKILLS

Loss of Oar

In the event of a loss of an oar, either through breakage or overboard, the cox needs to decide how to load up the leeward side of the boat and compensate for the missing oar with the rudder. One overpowered side, balanced by the wind on the other side allows crablike steerage that, while inelegant and inefficient, is nevertheless usually adequate to get to safety. Remember, the closer to the bow an oar is, the more influence on the steering it has. The cox can also call for more or less power from the bow most people to help fine tune the steerage.

Loss of Steering

Losing a rudder or steering oar leaves a couple of options. The cox can grab the rearmost oar and steer with it, if the cox can anchor it either through an oarlock positioned in the stern for that purpose or with a lanyard, or even by anchoring it on the transom by hand. Anything that allows a pivot on a fulcrum will suffice. The alternative is to steer by rowers, powering up and down to keep a bearing. This is a pretty fancy piece of coxing that is fun to practice with your crew.

Loss of Rower

If a rower is disabled, for whatever reason, the roll of the crew is to get that person to shore. In re-shuffling the crew to make up for the loss of a rower, the cox must load up the leeward side and let the wind compensate for the missing rower. The best place to

sight the gap in the crew is aft of center. The bow pair must be in place or the boat will be un-steerable.

Broken Oarlock:

Always be prepared for a broken oarlock. In a thole-pinned boat, a quick grommet loop with the pin forward of the oar is easy. The pin is forward to drive upon. Sliding a piece of line through the oarlock hole and tying it fairly tightly around the oar can dummy an oarlock. This is sloppy, but can make up some reasonable portion of the missing power.

Redundancies:

A crew ought to embark with disasters in mind each time they voyage. What would render the boat useless? Rudder, oar, oarlock, bailer, rower, cox, storm? The crew should always be thinking in these terms, and the cox should be helping with that consciousness. Prepare for a disaster, then hope it's unnecessary.

CROSSING ANOTHER BOAT'S BOW

In that we are arguably the slowest boats on the water anywhere, the burden often lands on us to get out of the way of other boats. That we generally have the right of way is of no value, in that we could pretty easily be both correct and dead. All working watercraft have the de-facto right of way, either because they are going about their business or because they are so large that they cannot swerve to avoid us.

What if getting out of the way involves crossing in front of a moving boat? First of all, a cox must be able to estimate the speed of an oncoming vessel to decide whether to cross, stop dead, or turn 180-degrees and run. When in doubt, stop. If the decision is to cross in front, there are a few steps. First, inform the crew and prepare them to power up for a predictable number of strokes. Then, if you are sure, get moving. The cox must then focus on the stem (the bow) of the oncoming boat. You can chart your progress by how the side of the boat behaves. If you continue to see the initial side of the hull, you are failing to make progress and should reassess your decision. It may be that the boat is turning as well, with you. This is bad. You ought to assume that the bow of the boat is screening you from the skipper's eyes,. This is not that far fetched as many boats, particularly working fishing boats, have their helm on the starboard side. If you begin to see the other side of the hull, that means you have passed in front of the stem and you're well on your way to safety. However, don't decelerate immediately. The more of the far side of the boat you can see, the better, so keep some way for a while. Soon, you should see the whole side of the boat and the track of the vessel should become obvious. Then and only then can you relax.

With the advent of high speed, multi-hull commuter vessels, the time envelope has changed dramatically. It is sound practice to develop a rule of thumb about these boats as they can move dramatic distances in 90 to 120 seconds. Never think about crossing the bow of one of these boats. The absolute response to them is to run.

SQUALL LINE SKILLS

Aside from avoiding drunks in speedboats, the most important precaution a cox must take into account is being aware of squall lines. Squalls are weather cells that move at

disconcerting speeds. They can shift the direction of the wind, carry both torrential rain and lightening, and usher in big climatic changes. The front that accompanies a squall line is usually less violent than the leading edge, but the activity that takes place in the first wave of weather, often lasting up to 15 minutes, can drive a crew miles from the spot where it was hit, and onto lee shores or other inhospitable spots. The primary lesson for coxing in general and squall line precautions specifically is to have a Plan B. At all times, a cox ought to have a contingency plan in the event that the original goal, Plan A, fails. When a squall is imminent, all planning and navigating should factor in an escape plan, either to a sheltered cove or to water sufficiently open that you can be blown downwind safely, even if the latter means landing the boats at a completely different take-out spot than planned or used before.

Spotting a squall begins by believing it is possible. Often squalls are preceded by very flat, calm air. Suddenly, one can see a dark blue line coming at an acute angle to the prevailing wind. The water ripples, and often there is an accompanying dark cloud hovering over the changes in the water. The cloud lends credence to the concept of impending danger, but not all squall lines have cloud cover. If you are on land when you see a squall approaching, do not go on the water and try to beat it home. Squalls can move at a speed and with a violence that will astonish you. If you are on land with your boat, make sure the boat is stable and secure and stay ashore until the squall has passed.

If you are afloat when the squall hits, you must take defensive measures. We have used two options:

Option One:

The first is to point the bow into the oncoming wind and row against it. This accomplishes two things. First it assures that your crew cannot see the squall and is occupied, thus is less fearful. Secondly, even though you cannot row effectively against a squall, this effort assures that you are pushed downwind slowly and under control.

The ferocity of a front moving through your area can be terrifying. The appearance of calmness and confidence of the cox is *essential* to the well being of the crew, so having your boat under control, having a goal of not being blown too far from home, and having an arduous task (rowing upwind) all contribute to your crew remaining strong and reasonably composed until the danger has passed.

If you are out rowing in concert with another boat, every effort should be made to get close together when the squall hits and to remain close during the event. When a squall is approaching, drive hard to get together and then to stay together. Should one boat get in trouble, the other can respond, but broken contact in these situations is virtually impossible to regain. It is important to remember that the proximity of another crew lends strength and confidence to both boats.

Option Two:

A cox may also choose to run before a squall. The downside to this strategy is that you can find yourself two miles away from your starting point in no time, and then have to cope with tough logistics on the other end. But, hey, if this is the best (safest) choice, go for it. In either scenario, the cox must stay *directly into* or *directly before* the wind and avoid crossing the squall either to maneuver or to try to turn around. These actions place the boat broadside to the wind and run the risk of the boat broaching and capsizing. If the cox is unable to maintain the heading into the wind, it can be useful to take an on-side

rower off their oar and double up on an offside oar. This gives the offside crew some help and takes the power off of the windward side.

In the event of a whiteout or hard driving rain and possibly hail, despair is a real possibility. If the cox understands that the squall is finite, that the various things going on inside the squall, though uncomfortable, are seldom lethal, then the cox can transfer that knowledge and confidence to the crew, and focus them for the 3 to15 minutes that the event will last. Remember, your confidence and your fear are palpable and transferable. Communicate with intention in a crisis.

Throughout these experiences, the role of the cox is to have the long view, to see the broad angle such that an end to the danger can be identified, and to drive the boat and the crew to that end. Look for creative ways to give heart to yourself and your crew. Look for strength among your crew: you will find it where you need it.

A FEW RACING PROTOCOLS

Turning in Traffic in a Race

This is a thorny issue: Turns under duress in a rowing race are the hardest, most controversial of all maneuvers. The following is a stab at a protocol.

When approaching a turning mark (for the sake of this conversation, lets say the turn is to port), if all boats are nearly even, the inside boat has right of way. If another boat has open water between it and the inside boat, it can turn so long as the turn does not prevent the inside boat from making a turn, albeit a sharp one. The decision of how to craft a turn at a mark *must* include not interfering with another boat's turn. This responsibility rests on all boats, those ahead, those behind, and those overtaking. There are, as discussed in the previous paragraphs, varying degrees of sharpness to a turn from a long arc to a pivot. Those sorts of tactics must take into account impact on the other crews in the turn.

Covering

When approaching a turn, it is a legitimate tactic to "cover" the line of attack of another crew. Covering implies putting yourself in between the target and a pursuing boat. Covering can only be done if the lead boat has open water between it and the pursuer. The goal is to take away the inside of the turn and force the pursuer to take a wider turn, theoretically causing the following boat to lose ground and row further. Of course, a too sharp turn can stall the lead boat and a fast arcing turn can allow the pursuer to carry more speed on a somewhat wider arc and overtake a stalled boat. It is incumbent upon the pursuer to back off enough to avoid "spearing" the lead boat while it makes its turn. This can easily be forgotten in the heat of battle, but rear-ending a boat on a turn is a dubious tactic. There is no cost-benefit to trying up boats in mid-race except to those boats that avoid the tie-up. Wide, smooth, fast turns, carrying momentum and with open road ahead often have a much greater value than buoy- shaving hard turns. It is the responsibility of all boats in turning situations to avoid, as much as possible, interfering, and particularly risking collision, with any other boat. It is very good tactical policy as well.

Lining Up at a Starting Line

Implicit in a good start in a race is the ramp-up to the start. The burden on a race official is to make a start fair. Most race starts are made up of a bunch of boats with their

bows aligned waiting for a starter's command. Wind and current of any sort conspire to prevent that alignment, and it is imperative that coxswains understand that they are the crucial component in a successful start.

For the sake of conversation, let us say that the boats have a pre-determined "lane" position in line so that no one is jockeying for an inside or pole position. This is a common situation in many events, particularly round robin races. The coxswains must attempt to approach the starting line in such a way that the starter can assure that a) the line is straight, and b) that the boats aren't drifting together assuring a pile-up two strokes into the start. The "moth to flame" is very much a play in these situations: bows can be quite even, but the gaps and squeezes are evident everywhere. The wise cox gets near the starting line but hangs far enough back to allow others to come up slowly, to approach the line with utter control, and to be constantly aware of the drift of his boat and those around him. When half a dozen coxswains bring their boats and crews down in a line evenly spaced to an invisible start, sophisticated boat handling is going on and everyone has done a hard job well.

BOAT DRIVER CONCEPTS 101

The following are somewhat intangible, and very important in the every day life of a crew. Some rules of thumb:

- Start the day up hill, against the biggest difficulty, wind, tide traffic, all of the above. That way you're traveling "downhill" on the way home when you're tired.
- Articulate the plan for the day before setting forth. Is it a workout? Tell everyone the plan so they can parcel out their energy accordingly. Is it a voyage? Talk about the obstacles and what might prevent a successful outcome. Let the crew understand the various humps to be conquered so they don't get discouraged when they seem endless. This forces the cox to have a plan (!), and engages the whole group in being responsible for the outcome.
- Never drone! The cox's voice is the whip cracking over the crew's heads. It must inspire, encourage, lead, distract, and focus them when they are in the world of hurt that crews can and do face. If a coxswain drones and ends words and phrases on a downward tone, they drain energy. Let the tone of the words spoken end upward to encourage. This is real: coxswains should be aware of the impact of every word out of their mouths.
- Never work out your own stuff on the crew. The job of "cox" is a market economy. Crews won't go out with someone who likes being the officer too much. **A cox must be a rower and a crewmate first.** That way the requests made by the cox will be well received by the crew. Empathy matters!
- Unlike coxswains in river racing shells, open water coxswains take the role of boat skipper, working in close collaboration with the stroke oar. It is safe to say that the most adept mariner of any group takes the role of cox, often to the detriment of the crew as that person may well be one of the better rowers as well. However, the complexity implicit in navigating a human powered boat in the open water, in active shipping lanes, with a host of unskilled and non-professional boat skippers in private boats, in waters that potentially include currents, obstructions, and lee shores is enormous. Couple that with the equally complex demands of overseeing the drive train, 4, 6, 8 or even 10 rowers, as they struggle

to row as a unit, and the cox is walking a fine line to combine all the elements for an adequate row or workout, much less a race or a voyage. The fact that the coxswains comes from within, that they are rowers first, assures that they operate with empathy, assuring the rowers that they utterly understand the pressure that they are operating under and that the cox will ask only what the rowers can bear. The cox must shepherd the finite resources of the crew, keep the crew informed, tune them when necessary, and at all times be responsive to their needs while challenging their assumptions. A sense of humor is the crucial lubricant that makes a crew run smoothly.

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