



## Starbuck Dragon Boat Coaching Tips

From Bemidji Dragon Boat Festival

### Timing

At the start of a race, all paddlers "sit ready", with paddles positioned just above the water. When the race official yells "paddlers prepare to start", we've got our paddles in the water, we're ready to go. Timing starts with the first stroke, is extremely important throughout the entire race. Our first stroke is short, hard, and intended to break the surface tension of the water. The next 5 strokes are longer, harder, and slow. The following 16 strokes are faster, shorter, and about as hard as one can pull. These first 16 strokes can make or break a team: stay in timing with each other, pulling hard together, and you'll get the bow (front of the boat) out of the water first. If even one person's timing is off, you'll find your team riding in the wake of your opponents, playing catch-up for the remainder of the race.

### Pacing

After the 22 strokes (called 6-16), or 16 to 20, the drummer, or caller, tells the to "reach it out", slowing their pace to between 60-66 strokes per minute and simultaneously reaching farther forward to produce a longer stroke. You can call for eight and eight, ten and ten, whatever seems to work for the particular crew. The idea is to keep the paddle in the water for as long as possible, more water than air. Timing remains critical during the rest of the race - any one person out of time can pull everyone behind her or him out of time. The result of an out-of-time boat resembles a caterpillar, which works for the caterpillar, but effectively slows the boat, as if the two sides of the boat are pulling against each other. Pacing is also critical. Some racers prefer a faster pace, others a slower pace. In my limited experience what's most important is a consistent pace that emphasizes long, strong strokes with all paddlers entering and leaving the water at the same time.

## **Form**

How one paddles determines the volume of water pushed by the paddle, as much as the strength of the paddler. A strong paddler working inefficiently won't have as much pull as a weaker paddler pulling with proper form. The greatest challenge for any dragon boat team is for all paddlers to maintain efficient form throughout the race, especially when fatigued. It's SO easy to slack off on form when your muscles are tired, and you feel as though your lungs are about to burst. The moment form goes, timing will also fail. Each paddler understands his or her position in the boat, and does all they can to maintain proper form throughout the race.

Proper form calls for the paddler to 1) rotate their upper body, extending their arms forward with the lower hand ahead. 2) hesitate and rest an instant to check your coordination with the rest of the crew. 3) push the paddle down into the water until the lower hand gets wet. 4) pull back by rotating the upper body, keeping arms fairly straight, thereby letting large muscle groups do the heavy work. 5) stop the stroke by your hip. Any paddling behind the hip just lifts water, rather than pushing the boat forward. 6) lift the paddle out and rotate forward for the next stroke. These are short, powerful strokes, not "lovely boundary waters sweeping strokes".

## **The Sweep (steers-person)**

...is the person standing on the back of the boat steering the team to victory. This person has a massive responsibility, not only do they have to keep a rampaging wooden boat full of paddlers going straight down the course, but they are also the 'safety' person on the boat. The sweep is one of the most important parts of the team and they always have the last word.

The sweep, also known as the coxswain, helm, or tiller, controls the dragon boat with a steering oar similar in function to a tiller which is mounted at the rear of the boat. The steerer may work with the drummer to call out commands during a race. The responses of the oar are opposite to the direction they take - if the steerer pulls the oar right, or into the boat, the boat will turn left, and if they push out, or left, the boat turns right. The steerer has the power to override the caller at anytime during the race (or the coach during practice) if the safety of the crew is threatened in any way.

## **The Drummer**

...is the person who keeps the team in time. It's an integral part of a Dragon Boat win, as timing and technique are the key to a fast boat. The drummer is usually loud and energetic. They don't necessarily have drums so they rely on other methods, such as visual aids, vocal talent or other props to help them keep those paddles going in and out of the water like a steam train.

## The Paddlers

...without whom the others would be out of a job. The bones of the team are made up of the 20 paddlers in the boat and the few reserves on land cheering them on. To be a paddler you just need to be keen and like having fun - how easy is that! Pacers are the first three or four rows of paddlers. They must have good timing and be relatively light weight. Everyone behind them watches the pacers for timing. The Engine Crew are the heavy weights with big muscles and endurance who sit in the middle of the boat. Rockets are the back rows, behind the engine, basically sprinters who can give the extra push to get the boat up at the start and to really push in the final sprint.

### Voice Commands by Steers-persons or Drummers

The following voice commands will be used by The Bemidji Dragon Boat Festival provided Steers-persons:

**Attention** -Used to get all paddlers' undivided-attention.

**SIT Up** -When paddlers hear this command it is the signal to sit upright, have their paddles across their laps and to be ready for the next command.

**Paddles Up** - The signal for paddlers to instantly assume the paddling position (paddles raised above the water, bodies in position to paddle, bracing their thighs against the side of the boat). They will hold this position until the next command is issued

**Take It Away** -or **Go** or a sound device, such as an air horn -This is the signal, issued with considerable gusto, to commence paddling. Should be preceded by instructions as to whether this is a racing start, a slow and easy effort to get the boat moving, or even just a given number of strokes for maneuvering purposes, for example, "five. easy strokes forward."

**Let It Run** -The-command to stop paddling immediately and glide.

**Left side draw** - Paddlers on the left side of the boat lean out slightly and paddle sideways to move the boat to the left. The same command can be given to the right side of the boat to move it in the opposite direction. Other variations for boat maneuvering include calling on the left front, right front, left rear or right rear paddlers to draw.

**Back paddle** -All paddlers stroke in reverse to move the boat backwards.

**Stop the boat** - Paddlers thrust blades vertically into water and dig in to bringing boat to a halt.

**Hold water** - Paddlers use variety of strokes (above) to maintain the position of the boat on the water despite wind, current etc. Typically used during pre-race positioning.

**Steady the Boat** - Paddles horizontal with flat resting on top of the water to stabilize the boat.

## More paddle stroke detail

There are several components to a dragon boat or outrigger stroke: 1) The "catch" at the front of the stroke. The blade should enter the water at a 45 degree angle. 2) The "pull" begins when the blade reaches a vertical angle. A paddler's outside arm should remain straight through the pull, until the blade reaches a 45 degree negative angle, usually when the outside arm is at the mid-thigh. 3) The "release" or "return" is the final stage of the stroke. To release, the outside arm should slightly bend and the blade should release to the top of the stroke. It is important for the blade to return as vertically as possible, with the top hand staying outside the boat. Each of these components of the stroke are equally important and must be done in synchronization with the paddle directly in front of you which should, at the front, be in time with the pacers.

If paddlers are not synchronized, the result is a caterpillar or centipede whereby each successive pair of blades hits the water a fraction of a second behind the blades in front, with the collective stroke of the boat falling out of synchronization. During a race the sounds of other drums may also make it confusing or unreliable to time off the drum beat.

Experienced paddlers will feel the response of the boat and its surge or resistance through the water via the blades of their paddles, and will adjust their reach, and the catch of their blade tips, in accordance with the power required to match the acceleration of the hull through the water at any given moment.

## Paddling Basics Revisited?

The technique that will be discussed is based on flat water sprint canoe style used by the two time International Dragon Boat Champions – The Canadian Men's Dragon Boat Team. There are six key parts to the dragon boat stroke. When done properly, a boat flies; executed improperly, the boat will feel sluggish and heavy. The first three components set up the stroke, while the last three are considered to be the work-phase part of the stroke. The six components are called: **rotation, reach/extension, catch, pull, exit and recovery.**

**Rotation** The image some coaches use to help paddlers picture rotation is that a pole is inserted through the head, along the spine, and then anchored to the dragon boat seat. Another way of achieving full rotation is to present your back to the shore or have your chest facing your partner. Full rotation, or twist as it is sometimes called, allows for maximum reach/extension.

**Reach/Extension** This position in the stroke is crucial in maximizing the length of the stroke. The position of the outside paddling arm is equivalent to pulling a bow and arrow. The outside shoulder should be dropped slightly and also extended forward. The torso leans forward for additional extension.

A proper reach position is the foundation of a proper dragon boat stroke. The reach position is the extended position with the paddle a few inches above the water before the driving it into the water. This reach position determines the length of a stroke and a long stroke means more water is pulled.

The reach position is the end point of the Recovery phase, but is the beginning of a new stroke cycle.

The reach position determines the rotation of the torso. If the torso is "rotated" forward upon the paddle entering the water, the torso will naturally want to "derotate" back to the normal seated upright position.

As mentioned previously, the lower arm position is similar to drawing a bow and arrow. The bottom arm is extended straight forward parallel to the water. The lower shoulder is dropped and is extended forward and therefore the shoulder on the top hand side comes back and up. In the Reach position, these four points on the body should be lined up in a vertical plane: (a) top hand, (b) head, (c) lower shoulder and (d) lower hand.

From the side view there should a straight line from the top hand, head and hip. The torso rotation, extension of both arms and the forward lean are important aspects of the stroke. The upper arm coming over the head. The lower arm is fully extended and is almost locked at the elbow. The lower hand grip should be relaxed and not grip the paddle too hard. The paddle flips forward into the reach position where it is at its highest potential energy level. From this position, the potential energy will be used to submerge the paddles as the stroke progress. Catch The catch phase is the most critical to the speed of the boat. The catch is the moment the paddle blade first bites into the water. The top hand is held over the water, then drives down on the paddle with the outside arm relaxed and fully extended.

**Pull** Once the paddle is fully submerged or "buried", the next component of the stroke is the pull phase. The paddles should pull back directly parallel with the boat. The top hand stabilizes the paddle as the bottom arm and back muscles pull back. To use the back muscles effectively, the paddler sits up while pulling and continues to drive the paddle downward with the top hand. Maximum power and endurance will come from using the larger muscles of the back, shoulder and trunk rather than relying on the smaller arm muscles.

Exit At the end of the stroke the paddle should exit the water at the hip. Allowing the stroke to go past the hip results in the paddling blade being at an angle that would slow down the boat. The phrase "out at the hip" is often used to correct a stroke that is too long. The outside arm bends slightly to allow the paddler to clear the water and then it is pushed or snapped forward.

**Recovery** This part of the stroke is the rest phase when the muscles are not working as hard; recovery speed plays a large role in determining the stroke rate. During recovery, the torso starts rotating and leaning forward to setup for another cycle of the stroke.

## **The Race**

Boats will race three at a time. There will be a visual starting line which the starter will be looking across to keep boats behind. False starts can cause disqualification. Ready Set Go, or something like it will begin the race, maybe an explosion or a horn will be the start cue. Run the boat as straight as possible, perhaps yelling for more power on one side or another if steering is a problem. Be sure to talk to your team about how they should paddle at the finish! They are more likely to cause a collision or to tip over after the race than during it. Keep them in balance and head somewhere definite as soon as you have run past the finish, keeping out of the way of other boats. The boats will unload and the next team will head for the start while the other set of three is racing.