BOAT STRUCTURE

The boat crew is broken into three sections, the front, timing box: first six paddlers, the engine room: the middle eight paddlers, and the back, the last six paddlers. The first two paddlers are called the strokes or leads. The middle eight paddlers or the "engine room" is usually reserved for the heavier, stronger paddlers.

There is a drummer at the head of the boat and a steersperson to the rear.

Note: The first and last three rows of the boat may have specific safety commands to listen for and act upon when need be.

TIMING IS CRUCIAL

To achieve good timing, make sure you know whose top arm you are going to be looking for when you get in the boat and start paddling. Keep your eyes on the stroke that is diagonal from you. Remember that the people in the timing box (the first three rows) have to stay together since the rest of the boat relies on the timing box to see the pace. For the people behind the engine room, rely on the furthest forward paddler that you can see for timing when you cannot see the front. As a paddler, remember to keep your top arm up and focus on timing with the stroke or person that you can see furthest up. If you are in between two paddles, timing can be complicated, but if everyone is following the strokes pace, paddle collision shouldn't be frequent, the timing box should be in sync, and the back rows should be able to rely on the engine room for the pace. EVERYONE HAS TO DO THE SAME THING TOGETHER. It is more effective to be “in sync” than to have a rapid stroke rate.
**PADDLING BASICS**

There are six key parts to the dragon boat stroke. These are: rotation, reach, catch, pull, exit, and recovery. Throughout these steps it is important to keep your head up and your eyes locked on the stroke and keep with the rhythm.

1. **ROTATION**

Fully rotate so that your chest facing your partner. Full rotation allows for maximum reach. Your outside arm’s (bottom arm) shoulder should reach forward but do not drop this too low. Your top arm’s shoulder should be above your head. Try not to drop the outside shoulder to low. Keep the two shoulders parallel to the water as much as you can. The position of the outside paddling arm is similar to pulling a bow and arrow. Lean out slightly to keep your paddle parallel to the side of the boat without hitting your paddle against the gunnel.

Hold the outside/bottom hand at a fist-length away from the blade. Hold onto the paddle, but do not grip it too tightly.

If the torso is "rotated" forward upon the paddle entering the water, the torso will naturally want to "de-rotate" back to the normal seated upright seated position; this movement of de-rotation is what moves the stroke. In other words, you are not using your arms to paddle as much as you are using the motion or de-rotation to paddle.

Throughout all this keep your back straight, head up and stick out your chest. Paddlers should watch the strokes for the pace at all times.

2. **REACH (Setup)**

The reach position, aka set-up, will determine the length of the stroke. You will be more effective and efficient with a longer reach as your paddle will be able to be in the water longer at the pull stage; this moves the boat. Therefore, it is crucial that you reach as far forward as possible to start your stroke out correctly. Reach/lean forward with your rotation and hold the paddle a few inches above the surface of the water to set up for your stroke.
Set Up Position
- There should be a straight line from top hand through top arm shoulder to the hip
- The upper arm should be straight with very little bend at the elbow if possible
- The bottom arm is parallel to the water with that shoulder extended forward
- The top arm shoulder is behind the head
- Fully reach and extend your body forward and remember to have good rotation
- Your chin should be parallel to your knee

The gunnel’s hip is braced hard against the side of the boat. Plant yourself securely with your feet.
3. **CATCH**

The catch is the moment the paddle blade first hits the water. **Enter the water at a 45 degree angle.** Paddles should enter the water without a *plunk* sound or a splash. You are rotated and extended forward with the paddle hovering the water at this point. If you are positioned correctly, simply lower your arms down so that the paddle enters the water at a 45 degree angle. Keep your body rotated and keep the position of your arms while you lower your paddle into the water. No de-rotation occurs at this moment. Submerge the paddle by driving the top hand down. Fully bury (submerge) your paddle into the water and try to get your bottom hand wet. Once fully buried, your paddle will be straight up and down, parallel with the side of the boat.

**PADDLE TECHNIQUE - The Catch**
4. **PULL**

Once the paddle is fully submerged or "buried", you will then begin to pull back keeping the paddle straight and parallel to the side of the boat. Use your top hand to keep the paddle stable. **ROTATION! ROTATION! ROTATION!** Rotation will be the driving force for your paddle. Use long, strong strokes! Rotate from hips, do not use arms. The arms hold paddle in place only. When body rotates the paddle ends up straight and where it should be. If you use arms the angle of paddle is wrong and you pull too far. 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. Hips and shoulders should work together and move back with the paddle. **Compress your abdomen and remember to breathe.**

**PADDLE TECHNIQUE - Pull**
5. EXIT

You should think about exiting the moment your paddle moves past your knee and exit by the time your paddle gets to your mid-thigh. Pull the blade straight out of the water as if you are taking a sword out of its harness. Rotation stops. Pull out your paddle with the top hand/arm and shift your hips rotation for exit and recovery.

On the exit we should 1) begin thinking about pulling the paddle out of the water when it gets to our knees, 2) remember that the paddle should be out of the water by mid thigh (at the latest), 3) use our top arm to lift the paddle vertically out of the water on the exit. Paddlers should not be pulling when we are exiting.
PADDLE TECHNIQUE – Exit and Recovery
6. **RECOVERY**

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.

1) Immediately recover so we don’t clash paddles with the person behind us, 2) Leave at least a foot of space between our paddles and foreheads when recovering into the reach position; this prevents splashing the person in front of you, 3) Make a quick recovery. **Snap back quickly into the ready position and remember to have good, consistent form.**
RACE PREPARATION

THE RACE PLAN

Racing can be broken down into smaller elements: **pre-race, start, middle, finish, post-race.**

**A. Pre-Race** - Includes on-land stretches, planning the arrangement paddlers in boat, warm-up to the start line which may include one practice start.

**B. Start Sequence** - The start that is taught to novice teams is 5-10-10, which means five deep long strokes to get the boat moving from a stationary position, followed by two sets of 10 sprint strokes that accelerate the boat to top speed. The second set of 10 strokes includes a series of transition strokes to bring the stroke rate down to race pace to allow the stronger and longer "power strokes".

On race day, boats will line up at the starting line and all team members should be focused and concentrated on the calls from the announcer. Paddlers should be calm and clear in the mind, always ready. It is EXTREMELY important that paddlers listen for the call as it is sometimes difficult to hear.

Paddlers will hear:

"**Drummers are you ready?**"

DRUMMER calls :: **Bury your paddles!!!::** and ::**Fully Bury it!!::** if there are some paddlers not fully burying the paddle in the water.

"**Attention please**” ::**Paddlers take a deep breath in and hold it::** Paddlers are still in ready position.

A second or two later you will hear the **horn blow**, which signals the first stroke in the **5 – 10 – 10 sequence**. ::**Paddlers breathe out as they paddle::**

**DRUMMER will call:**

"**One – Two – Three – Four – Five**” (First 5 strokes) said to the beat of the lead stroke.

"**Up, Up, Up, 4, 5, 6, 7, 8, 9, 10, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, Ready and Reach, Reach, etc.**” – for the 10-10 sequence and the strokes following immediately thereafter.

In the last set of 10 sprint strokes the **lead stroke will gradually bring the pace down to a race pace**, likely by count 8 of the second 10-10.

Lead stroke will let the drummer know that the boat is at race pace and the DRUMMER will call ::**Race Pace::** a couple of times in time with the beat.
Then, the DRUMMER may say *Ready and Reach, Reach, Reach* to the beat of the lead stroke, which reminds paddlers early on of their form, which is crucial throughout the race.

**Race pace** is slower than the 10-10 and is a pace at which the boat can keep up with the stroke while fully extending and rotating. Efficiency is measured by keeping in time rather than how strong or fast the boat is paddling.

**C. Middle** - **POWER 10**: A series is a set 10 or more strokes that are harder or more powerful to help the boat speed up. Please note that the paddlers must still hit in-stroke and must not shorten up on the stroke reach for the power 10 to be successful.

The drummer will call **Power- 10**, usually when notified by steers person. It is important to focus on fully extending and rotating while using 150% of force in these 10 strokes. It is not faster strokes, just more efficient and more powerful. The Power 10 may be called a couple of times to get ahead in a race.

**D. Finish** - At this point in the race the objective is to bring the boat up in speed for that last finishing kick. It is similar to a Power-10. The finish is one of the most determining points in a race. As teams get tired, strokes get sloppy and out of sync while paddlers usually forget to look up and keep in time with the stokes. This is your chance to keep it together and pull ahead.

The DRUMMER will call **“FINISH IT!!!”** and/or **“FINISH IT NOW!!!”** Alerting paddlers not to get sloppy and to put all they’ve got into keeping in time and give it all.

If strokes get sloppy and out of time the drummer will call: **“HIT TOGETHER”** – in time with the beat of the stroke.

Paddlers can get distracted by other boats, especially toward the end of the race, so the DRUMMER will call **“FOCUS IN THE BOAT”**

**E. Post-Race** - Analyze what went right and what went wrong. Make the adjustments for the next race.
**WORK OUT TIPS**

Please note that these tips are only suggestions. It is wise to consult your physician before beginning any new workout or diet plan.

Plan your workouts working backwards from race day. From about a week to two weeks prior to the race the workouts should be have a high volume (more repetition and longer time periods) plus mid to high intensity (how fast and how hard you are working out, i.e., speed and resistance). The week before races should be lower volume but heavy on intensity. Objectives are to get in the last bit of conditioning and prepare the body to peak for the race. As the volume of the workouts decrease and the intensity of the workout increases on the week leading up to the race, the body will react by storing more energy (glycogen) in anticipation of tougher workouts.

For most exercises, it is important to keep good posture, breathe in and out with repetitions or throughout your routine, and try to draw in the abdomen to keep a tight stomach. Drink lots of fluids before, during and after exercising. You know your body the best, so gauge your exercise according to your ability. Start out slow and begin to increase the workout intensity as your body becomes conditioned to exercise.

Dragon boating uses the major muscle groups in your body and is a full body workout when executed correctly. You may want to focus on your major muscle groups when training, but it is a good idea not to ignore the support muscles. Make sure you practice good breathing technique while you exercise to train your body and mind to stay focused and energized, which is extremely important on race day. Interval training (changing the pace, resistance level and incline throughout the workout while running, using the elliptical, treadmill, stair machine, etc) and resistance training (using gravity, weights, weight ball, etc for resistance training) are good ways to tone and increase your endurance. And of course, the rowing machine is a great way to train your body; although, please note that the form and technique to dragon boating is different from the rowing style.

Overall, diet (not necessarily less food, but the right kinds of food), regular exercise and sleep may lead to healthy lifestyles.
TERMINOLOGY AND COMMANDS:

1. **PADDLES ON THE GUNNEL**: paddle across lap with paddle blade over the gunnels, command given before “paddles up”. Used when drummer or steersperson wants to get team’s attention. Also used any time you are not paddling and sitting in the boat waiting for instruction. You should always be “READY in the boat”. Accidents happen when people aren't ready.

2. **LET IT RIDE**: Stop paddling and let boat coast.

3. **TAKE IT AWAY**: Begin paddling. Used during practice and in between racing. The coach or drummer will use this command to relinquish control of the boat to lead paddlers/strokes.

4. **PADDLES UP/READY POSITION**: Get in the ready position/set-up position. Hold your paddle blade above the surface of the water, fully rotate and ready to go.

5. **ATTENTION PLEASE**: Call on race day: fully bury your blade, full reach forward close to side of boat, fully rotated. Only used for starting. This is a speed command! Attention means the horn will blow almost immediately. “Bury your blades” will be called by the DRUMMER.

6. **BURY YOUR PADDLES**: race command in a start situation for paddles to be placed in position for the first stroke. Blade is fully submerged. Your hand is touching the water.

7. **RACE PACE**: The pace at which the majority of the rest of the race will be set at (save for the first 5-10-10).

8. **POWER 10**: A set of 10 strokes that are harder (not faster) to help the boat speed up. 150% effort!

10. **HOLD THE BOAT**: Hold paddle straight up and down at the side of the boat, lean forward and fully submerge your blade. Bring the boat to a stop with the paddles. Keep your paddles submerged and the blade parallel to the side of the boat.

11. **BRACE THE BOAT**: Called by the steersperson. This is used to stabilize the boat. Hold blades out to the side. Keep your paddles out and flat on the surface of the water to keep the boat steady. Blade is almost parallel to water and resting on the surface of the water; you should be comfortable enough to hold for a length of time. Its purpose is to create floatation along with a wider base for boat with pressure on the water. If the paddle is in the right place on the water, the water will help hold the paddle.
12. **DRAW RIGHT OR DRAW LEFT:** Called by the steersperson. Draw water on left side or right side of the boat in toward the boat by leaning out and turning the face of your paddle toward the side of the boat. This creates a motion that is not forward or backward moving. Efficient paddlers lean out into the draw working with the movement of the boat. (i.e. burry the paddle and pull the side of boat toward paddle). Reach out only as far as you can and keep the whole paddle buried as you draw. You should feel a lot of resistance on the paddle. Done at a slow speed. Everyone pulling in unison is the Priority. While one side draws the other may “brace and lean” or you may have a two side draw.

13. **BACK PADDLE:** Paddling backwards. This is not a big power stroke, may need to be fairly fast in a race ready situation. Paddlers have to be in sync. Thus the drummer or lead paddlers need to know the most effective speed of their team.