PADDLING BASICS

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.

1. 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. Shoulder position is the key to rotation. For the outside (or bottom) arm shoulder to extend or rotate forward, the top arm shoulder must come back behind your head. Try not to drop the outside shoulder too low. Keep the two shoulders parallel to the water as much as you can. The inside or top arm shoulder needs to move to the water side also to facilitate twist. This also helps to get your weight over the water by leaning out. Throughout all this keep your back straight, head up and stick out your chest.

2. 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 extended forward. The torso leans forward for additional extension.

A proper reach position also know as the setup 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. "A-Frame" analysis is often used to determine the correct lines of the setup.

The "A" Frame Set Up Position

Key points when analysing the "A" Frame:

- straight line from top hand through top arm shoulder to the hip

- Straight top arm at the elbow
- bottom arm parallel to the water with that shoulder extended forward
- top arm shoulder is behind the head

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 "de-rotate" back to the normal seated upright seated 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 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.

As well, from the side view there should a straight line from the top hand, through the top arm shoulder to the hip. The torso rotation, extension of both arms and the forward lean are maximum.

The upper arm should be straight with very little bend at the elbow if possible. The top arm shoulder should be behind the head on the setup. The lower arm is fully extended and is locked at the elbow. The lower hand grip should be relaxed and not grip the paddle too hard. The paddles 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.

3. 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. With the torso leaning forward as much as possible, the catch is initiated with the outside or lower arm shoulder dropping to plant the first four inches of the paddle blade into the water. There should be an attempt to maintain the paddle angle of the reach position. To do this do not start to de-rotate or un-twist during this phase. Once the tip of the blade is planted in the water continue to submerge the paddle by driving the top hand down. Paddle blade should now be fully buried or submerged. The shoulders and hips are still in the extended forward twist position ready for the pull phase.

4. Pull

Once the paddle is fully submerged or "buried", the next component of the stroke is the pull phase. The buried position is also call the "vertical" position or "90/90" which means from the front view and side view the paddle is straight up and down or at 90 degrees. The paddles should then 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. Note that both arms should be straight at the elbow while pulling through. Hips and shoulders should work together and move back with the paddle.

5. Exit

Conventional paddling theory says that the exit of the paddle should occur by the time it gets to the hip. In 2001, the Canadian National Teams introduced a new stroke that included an exit that was well past the hip. The bottom hand pulled back until it was at the hip but the blade tip was a good foot behind. The theory behind this new stroke is that the "pull phase" needs to be longer because of the relatively heavy boats compared to flat-water boats. The longer pull phase also produces the "glide" which seems to be the key to boat speed.

6. 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.