

HOW TO MAKE A FLY ROD WORK FOR YOU!!

By William T. Mangan (FFI) Certified Fly Casting Instructor

Part 2:

- **#2 ESSENTIAL (CASTING ARC)**

Not only do I teach Fly Casting here in Michigan, I also teach fly castings schools out West, each year. Several times a year I teach with other (FFI) Instructors, from the United States and other Countries, quite often having met them for the first time prior to instructing. One aspect of the (FFI) I particularly like, is that the instructors use basically the same methods and techniques to instruct, as a result, students are able to comprehend the instruction and benefit from it

Here are a few terms you should familiarize yourself with.

- Casting Arc: Rod angle created by the rod butt as it is rotated during the cast, from RSP to RSP, with the rod butt as the pivotal point.
- Translation: The piston like back & forth motion during the cast..
- Rotation: Rod angle change during the casting stroke, from bending of the wrist, elbow or body.
- Casting Stroke: Total distance the Rod Tip Travels during the cast.
- Total Casting Stroke: Casting Arc, Translation and Rotation combined.
- Trajectory: Upward or downward slanting direction of the casting plane, relative to the surface (water, grass etc) during a casting stroke i.e. casting high on the back cast and low on the forward cast.
- Tracking: The path the rod tip travels (with good tracking the tip travels in a straight trajectory, not wavering side to side or up and down.
- Creep: Rod rotation during the pause in the direction of the next cast. Allowing the fly line to move forward while line is still extending on the cast.)
- Drift (rotation): Rod rotation during the pause in the direction of the current cast.
- Drift (translation): Hand translation during the pause in the direction of the current cast.
- Rod Straight Position (RSP): The location of the rod at the beginning and end of a casting arc when the rod is Straight (unloaded)
- Follow through: It is a second, separate motion of the rod and casting arm (without power) which follows the complete stop at the end of the forward casting stroke.
- Turnover Point: The point at which the rod stops, reversing its bend from one direction to the other, and converts energy of the bent rod to the line.

The Casting Arc is the piece of Pie or V-shaped, angle of the rod, specifically the rod butt, as it travels from (RSP) to (RSP), which are the start and stop positions of the cast. Note: At the end of a casting arc the rod must be stopped, which starts forming the loop, the fly will go in the direction that the fly rod tip was stopped. On the crisp stop the bent rod will unload, rod tip straightens to "rod straight position"

(RSP), the tip counter flexes past the turning point, continuing with follow through past the RSP, then back to the (RSP) position.

The crisper the stop the tighter the loop, this applies for both the forward and back cast.

The Casting Arc MUST accommodate the Rod Bend, the deeper the rod bend the wider the casting arc must be. Several things effect the rod bend. The fly line has weight, therefore the more line you are casting outside the rod tip, the more the rod will load (bend). The faster you cast, the more the rod will load. Also the weight of the line effects the rod bend. Take for example a #5 weight fly rod with a #5 weight fly line. The #5 weight line has less weight/mass than a #6 weight line. All things being equal, line speed and length of fly line outside the rod tip, with the same fly rod, now oversized with a #6 weight line the rod will load more, therefore the casting arc must be widened with the #6 weight line.

The shorter the amount of line you are casting outside the rod tip, the narrower or shorter the casting arc must be. The longer the amount of line you are casting outside the rod tip, the wider or longer the casting arc. **See Fig. 1.**

In simplest terms remember:

SHORT LINE / SHORT CASTING ARC -- LONG LINE / LONG CASTING ARC



Fig 1. The casting arc must change when casting different line lengths. Note, the difference in the casting arc's with 25' line vs. 35' line.

If your casing a narrow candy cane or V-shaped loop, the casting arc (rod butt angle from RSP to RSP) is correct for the amount of fly line, and acceleration (speed), in which you are currently casting the line, the rod tip will be traveling near a straight line path (SLP).

If your loops are wide or open, the rod tip is traveling in a convex (dome) shape. The casting arc must be narrowed, (rod butt angle RSP to RSP), think cast a smaller piece of pie!!

Most often, especially with beginners, wide loops are caused by too much wrist rotation. Typically there should be no more than 20 percent of wrist rotation used. If you are using too much wrist rotation, try increasing the casting stroke length. By increasing the casting stroke length, while maintaining the same casting arc, the rod tip will travel farther, which will better accommodate the rod bend, getting the rod tip to travel closer to a (SLP). Remember you can create rotation with your arm and body instead of your wrist, this makes it less likely you will over rotate.

The angle between the rod butt and your wrist should be approximately 3 of your finger widths wide. If you keep this angle you will not rotate your wrist too much. There are different techniques to aide in stopping to much wrist rotation, like putting the rod tip inside your sleeve or tying the wrist to the rod butt etc. The problem with these techniques, I believe, is that it restricts the wrist to much.

If your having a wrist rotation issue try my favorite technique: Pick up a kids swimming noodle and cut off about a 4 inch long section, then trim 2 sides of the noodle section so that the total width is approximately 3 of your finger widths wide. Now cast with the section of noodle slightly gripped (not a death grip), between your wrist and rod butt. Keep just enough pressure on the noodle section so that it stays between your wrist and rod butt, without falling out, if it falls you opened your wrist up to much. When applying the "Crisp Stop", slightly tighten your wrist on the noodle. This is the my first go to technique I use when students have a wrist rotation issue and it works!! Practice with the noodle section until the angle, between rod butt and wrist, becomes second nature. **Fig. 2.**



Fig. 2. Use the Noodle Technique to help learn proper wrist rotation.

If your loops are tailing, then you must widen the angle of your casting arc (rod butt angle from RSP to RSP).

Tailing loops are caused from an abrupt application of power, somewhere during the casting stroke. One of the most common faults for a tailing loop is (Creep), and usually occurs on the back cast. Creep, as already stated, is rod rotation during the pause in the direction of the next cast. For example, on the back cast instead of stopping the rod at (RSP), holding it there and pausing (waiting for the line to straighten) the caster slowly moves (Creeps) the rod forward, then stops and waits. The farther the rod Creeps forward, the more slack that is introduced, and the shorter the remaining casting arc will be. Because of Creeping the distance needed for completing the proper casting arc has now been shortened, there is now too much mass/weight of line, to properly accommodate the rod bend.

Remember when the casting arc is too short for the amount of line outside the rod tip, the rod will (load) too much, causing the rod tip to travel in a concave path, dipping below a straight line path, causing a tailing loop.

A good fix for Creep, is Drift, and most good casters Drift. After the "Crisp Rod Stop:", move (Drift) the rod back, in the direction of the forming loop, which in reality lengthens the casting arc necessary for the particular amount of line being thrown. The extra length of the cast, gives you a buffer zone, by allowing more distance of translation travel time on the forward cast to eliminate any slack that may exist in the system, prior to reaching the critical starting point of the cast arc required, for that particular amount of line. Although very uncommon Creep can occur with the forward cast, easily fixed with follow through.

See Fig. 3.

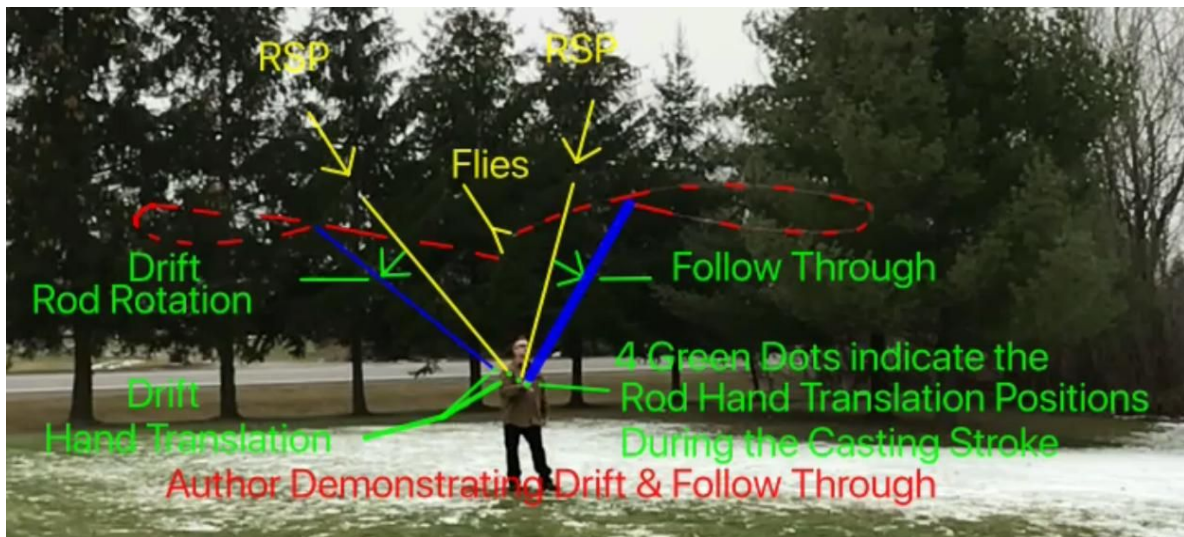


Fig. 3. Drift is a good fix for Creep. Both Drift and Follow Through are similar, and help eliminate slack, prior to rod reaching the critical start and stop position of the cast arc.

There are several other causes and fixes for a Tailing Loop, which will be covered in the final part of this series.

See you with the next Essential!!

Enjoy and tight Lines!!

Bill

About the Author: Bill is the owner/operator of Mangans Cast a Fly, a (FFI) Certified Fly Casting Instructor and Michigan DNR Certified Fly Fishing Guide. Please check out his website: www.manganscastafly.com