

# THE LOOP

*The Federation of Fly Fishers Journal for Certified Casting Instructors  
Fall 2007*

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## *FFF Certification - Italy by Raf Mascaro*

*From May 31 to June 3, 2007*

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The Federation of Fly Fishers organized a casting instructor certification event in Italy that included all three of the certifications available. The Casting Instructor (CI), Master Casting Instructor (MCI) and Two-Handed Casting Instructor (THCI) were offered.

The event took place in northwest Italy in one of the most beautiful valleys of the Italian alps. The valley is called Valsesia or valley of the Sesia River and the village was Piode.



*From left to right: Max Malli, Dan McCrimmon, Raf Mascaro,  
Rick Williams, Mauro Mazzo, Denise Maxwell, Chris King*

*(continued on page2)*

*FFF Certification (Continued from page 1)*

One of the oldest flyfishing techniques was born in Valsesia during the 16th century: the Valsesiana. It consists of a long cane rod, horsetail line (tied to the top) and three wet flies that were used to catch marble trout and blue fin grayling. The casting motion is sort of an overhead figure eight, keeping the line in motion until the final delivery. To this day, some anglers keep the technique going, albeit with updated rods, but with handtied horsetail lines.

The Federation of Fly Fishers is the only association certifying instructors worldwide and includes instructors in 41 countries on 4 continents. Of the 70,000 FFF members, approximately 1200 are instructors. Mel Krieger, Lefty Kreh, Steve Rajeff, Tim Rajeff, Jason Borger, Gary Borger, Charles Jardine, Joan Wulff, Simon Gawesworth, Al Buhr and other famous fly anglers are part of, or have been part of the FFF Casting Board of Governors (CBOG).

Four CBOG and members of the International Committee from Canada and the US, Denise Maxwell, co-editor of *The Loop*, the newsletter dedicated to FFF certified casting instructors, Dan McCrimmon, (THCI), Rick Williams (THCI) and Chris King (THCI)

were present to examine and certify the attendees.

The goal of the FFF Casting Instructor Program is to have the best fly fishing instructors with the highest level of preparation in casting, teaching and in several fly fishing techniques, using single-handed and two-handed rods. The certifications are subdivided into casting performances, teaching skills and fly fishing techniques.

Fourteen anglers attended the three certifications and three of them became Master Casting Instructors: Raffaele Mascaro, Mauro Mazzo and Alberto Sangiorgio. Raffaele and Mauro also passed the THCI. They will be part of a group of examiners who will travel and certify new instructors in Europe. Max Malli (THCI), Marco Bianchi (THCI), Roberto Zucca (CI) and Stefano Mondini (CI) were also successful.

It was an exciting week, together with old and new friends, learning some new casting and teaching tricks----who said that the Americans are not good casters?

*Many thanks to Dan, Denise, Rick and Chris.*



THCI exam: Raf Mascaro and examiner, Dan McCrimmon, with Rick Williams as witness

The next Italian certifications will be on February 23/24 in Treviso.  
**Last news:** On October 20 and 21, Giovanni Gatti, Lorenzo Nogara and Francesco Vinci got their CI.  
***Congratulations !***



Three new Masters - Mauro Mazzo, Alberto Sangiorgio and Raf Mascaro



Some serious competition for the casting area



Raf Mascaro with examiner, Dan McCrimmon. Raf received his THCI patch.

# *Casting Physics Simplified - Part 2*

*by Walter Simbirski*

Part one of this paper discussed physics that applies to linear motion, i.e., motion in a straight line. This section of the paper will expand these concepts to angular or rotational movement.

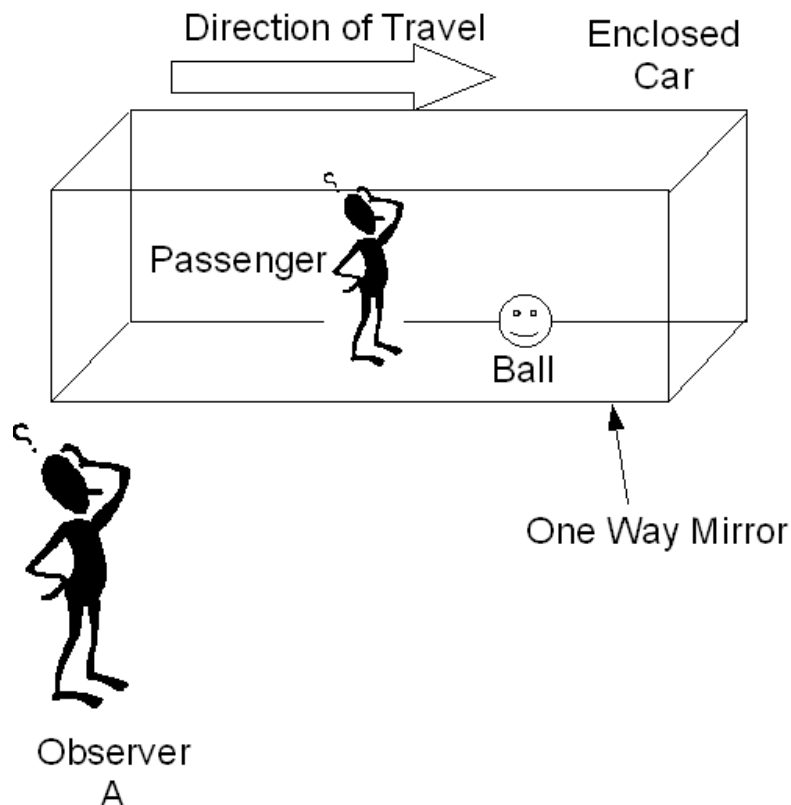
In order to do this, I will begin with the concept of a “frame of reference” which will hopefully, simply our understanding of angular physics.

In addition to angular motion, I would like to discuss levers and how they factor into our discussion of flycasting.

## **Frames of Reference**

When we talk about a Frame of Reference we are referring to the position from where we choose to watch an activity. The selection of this position can simplify our understanding of what is happening.

Let’s take a relatively simple example. Consider the following figure:



We have an enclosed train car moving at a constant speed of 20 mph. Inside the car there is a single passenger and a ball. The passenger is unable to see anything outside of the train car and the track it is riding on is perfectly smooth and straight. Unknown to the passenger one of the walls is actually a one way mirror so that our outside observer (observer A), who is standing near the tracks, is able to see everything happening inside the car.

*(continued on page 5)*



*(Casting Physics (continued from page 4))*

Now suppose that the passenger picks up the ball and tosses it straight up. The ball rises to a certain height and then falls back into his hand. From the passenger's frame of reference the ball appears to travel straight up and straight down. But from Observer A's position the ball appears to travel in an arc as the passenger moves under the ball from the starting position to the end position.

We have defined two frames of reference in this case - that of the passenger and that of observer A. Now let's ask a simple question of both observers - "What is the acceleration of the ball due to gravity as it falls?"

This is an easy determination for the passenger. He/she simply measures the time it takes the ball to fall from its peak to their hand and applies the formula,  $distance = \frac{1}{2} a t^2$  to determine a value for acceleration. This is relatively simple because the ball appears to move in a straight line from their frame of reference.

But what is Observer A's perception? From their frame of reference the ball appears to travel in an arc rather than a straight line. Measuring the distance the ball moves from its peak to the point it returns to the passenger's hand can be somewhat difficult and if we simply apply the raw formula that the passenger applied we see that the ball moved much farther in the same amount of time so the value of acceleration must be different. Of course, if we know that the train is moving at a constant velocity and we remember that velocity is a vector quantity we can just subtract the forward portion of movement and then consider just the distance the ball fell and we will get exactly the same answer as our passenger.

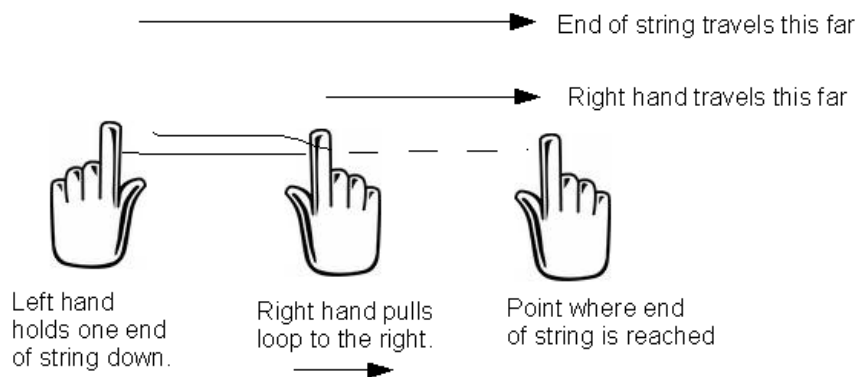
What would happen if Observer A was also moving? What if his path was different from that of the car?

This is a fairly simple example but we can see that by selecting one frame of reference over another we can make our understanding of a system simpler or much more complex.

## Loop Speed

One example of how our choice of frame of reference can simplify our understanding of flycasting is when we look at loop speed.

When we compare the speed of the fly leg to the speed of the loop we see that the fly leg travels at twice the speed of the loop when we are not shooting line. This is explained by the following figure:



*(continued on page 6)*

## *Castings Physics (continued from page 5)*

In the figure we take a length of string, double it over to form a loop, and lay the loop on a table. With our left hand we pin down one end of the string. We insert our right index finger into the loop. Now we slide our right hand across the table until the string is straightened out. It isn't hard to see that the end of the string traveled twice as far as our right hand so the end of the string must have traveled twice as fast as our right hand. So, if we don't shoot line during our cast, the fly leg travels at twice the speed of our loop face.

But what if we shoot line during our cast? This can be simulated by sliding our left hand to the right but at a slower speed than our right hand. How do we determine the speed that the loop is traveling compared to the fly leg? For purposes of illustration let's say the fly leg is traveling at 2 feet per second and our rod leg is traveling at 1 foot per second.

If we choose a frame of reference in which both hands appear to be moving, we would have to measure the total movement of the end of the string and calculate the speed at which it traveled. We would then have to do the same for the loop and then compare the two values. Most of us already know that the speed of the loop is simply the average of the speed of the fly and rod legs. In this case the loop would be traveling at 1.5 feet per second.

Now if we set up an observation point, or frame of reference, above our left hand and then moved this point in synchronization with the left hand it would appear to the observer that our left hand isn't actually moving. To this observer the fly leg would appear to be moving at 1 foot per second and the loop would appear to be traveling at 0.5 feet per second. Now in order to determine the actual speed of the loop we add the speed of our left hand to arrive at a loop speed of 1.5 feet per second.

## **Angular Motion**

When we try to analyze angular motions in terms of linear physics, we quickly find that things get quite complicated. I mentioned in part 1 that any time an object in motion changes its direction, it is accelerating. But if the object is turning at a constant rate, in degrees per second or revolutions per second, why do we have to consider that motion as acceleration?

In order to simplify things we can change our frame of reference when looking at angular motion. A change in the frame of reference is not limited to just the position we observe from but if we can define a set of mathematical functions to translate, or transform, from one frame of reference to another then we can simplify our understanding of the system by changing the frame of reference and use the transformation functions to move between frames of reference as we see fit - just as we did when considering loop speed when shooting and not shooting line.

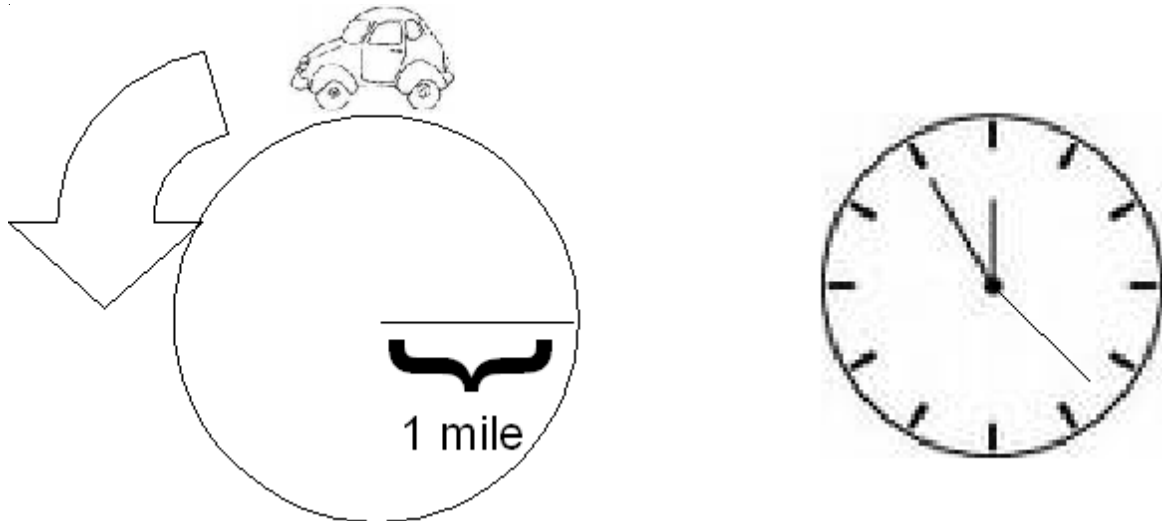
When we consider angular motion and linear motion of an object we can draw parallels between the two types of motion by considering a rotation in terms of degrees of rotation as opposed to distance traveled. Thus the angular speed of an object is determined by how many degrees it rotates about a point in a given amount of time.

A car traveling around a circular track of radius 1 mile in 15 minutes could be said to be traveling at approximately 25 miles per hour or 24 degrees per minute depending on our point of view. The second hand of a clock travels at 360 degrees per minute or one revolution per minute.

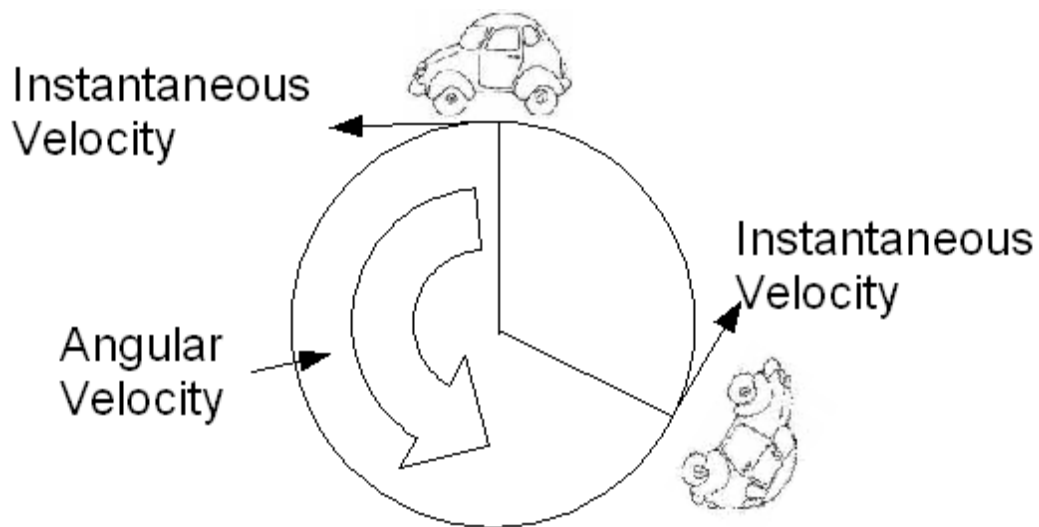
Angular velocity is determined by whether rotation is clockwise or counter-clockwise. This gives us a magnitude (degrees or revolutions per second) and a direction which provides us an analogy between linear and

*(continued on page 7)*

angular speed and velocity. If we know how many degrees per second that an object is rotating and the radius of our rotation we can move between our linear and rotational frame of reference by using the formula:  $\text{linear speed} = (\text{radius} \times 2\pi \times \text{angular speed in degrees} / 360) / \text{time}$ . Converting velocity is a bit trickier. Any time an object is traveling around a circle its instantaneous velocity is tangential to its current location on the circle:



In order to determine the object's linear velocity we need to know its current location on the circle and then we can use trigonometry to determine its instantaneous direction of travel. The magnitude of the velocity is simply the speed as previously calculated.



Angular acceleration (e.g., degrees per second per second) and linear acceleration also follow a similar relationship. If we denote linear acceleration by the symbol  $\mathbf{a}$  and angular acceleration by the symbol  $\boldsymbol{\alpha}$ , then the relationship between the two is given by the formula:  $\mathbf{a} = \boldsymbol{\alpha} \times \text{radius} \times 2\pi$ . This gives us the conversion for magnitude of the linear acceleration. Again, in order to determine the instantaneous direction of the acceleration we need to know the current location of the object.

### *Casting Physics (continued from page 7)*

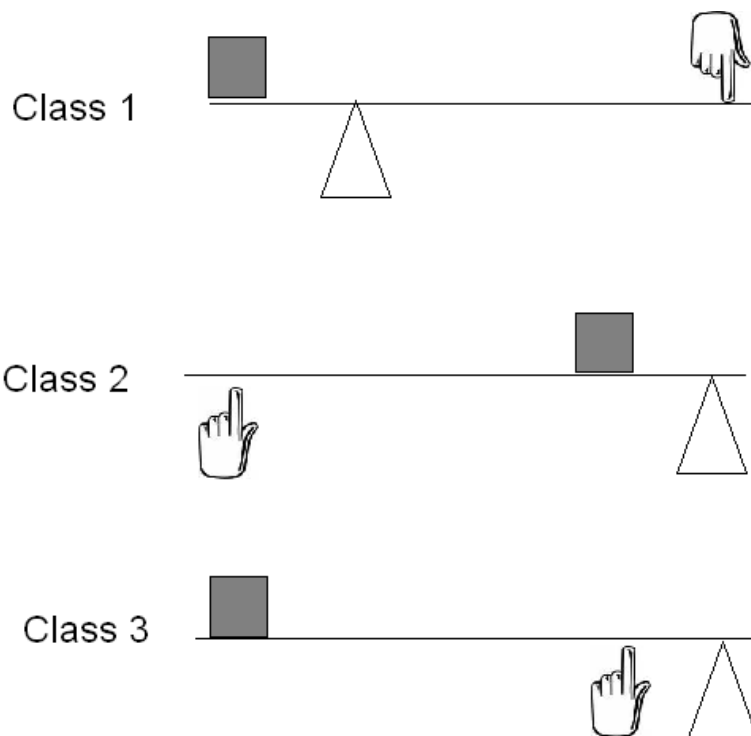
The final element we will consider at this time is angular force, or more correctly, torque. Torque can be thought of as a force that causes an object to turn or rotate. Torque can be measured in Newton meters, pound inches (or inch pounds), or pound feet (or foot pounds). Notice that units of measurement for torque consist of both a force and distance. In order to determine the amount of torque you multiply the amount of force being applied by the distance from the point of rotation. For example, if you apply 100 pounds of force

to a nut using a 1 foot wrench you are applying 100 foot pounds of torque. If you apply the same amount of force but use a 2 foot wrench the amount of torque is 200 foot pounds.

Our discussion of torque leads us nicely into a discussion of levers.

## **Lever**

Basically there are three types of levers called, conveniently, class 1, class 2 and class 3 as shown in the following figure.



Each class of lever has the following elements in common – the lever is attached to a fulcrum (the triangle in our figure), a force is applied to a point on the lever (the hand), in order to move a load (the block). Since the lever is attached to the fulcrum it rotates about this point when we apply a force to the lever but as we saw in our discussion of angular movement a force that results in rotation is actually a torque. In addition, the amount of torque changes as we move the application point closer or farther to the fulcrum. So, if our point of application of force in a class 1 or 2 lever is 10 times farther from the fulcrum point than our load, we can move the load by applying only one tenth of the force generated by the load. If the load weighs 10 pounds we only need to exert 1 pound of force to move it.

*(continued on page 9)*

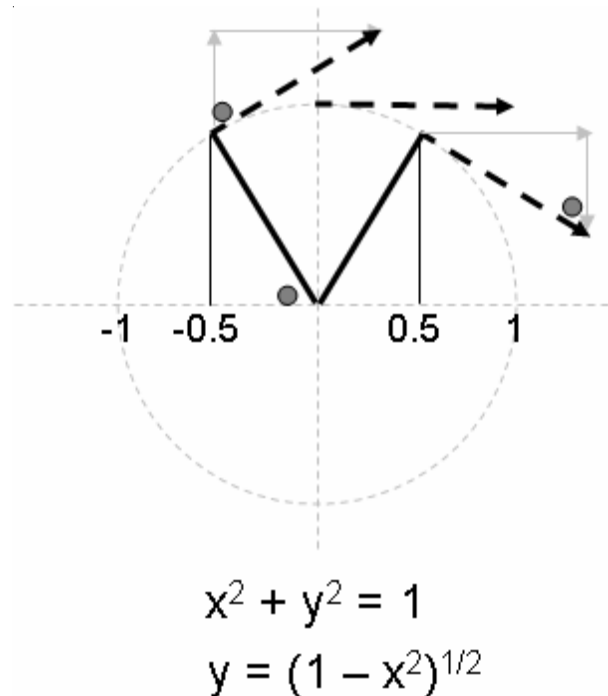


### *Casting Physics (continued from page 8)*

The purpose of the class 1 and class 2 levers is obvious. We use them to make it easier to move heavy loads. But what purpose does the class 3 lever serve? We can see that to move a 10 pound load we would need to exert 100 pounds of force. Why would we want to do that? Again, notice that the movement of the class 3 lever is circular and that if we move our application point 1 inch then the load would move 10 inches. The class 3 lever allows us to move an object much faster than pushing on it directly. This principle applies to catapults, hockey sticks, and fly rods.

In the case of the fly rod, consider a 9 foot rod held by an average person (distance from elbow to hand is one cubit or about 18"). If we move our hand 1 foot, by rotating at our elbow, the rod tip moves 7 feet.

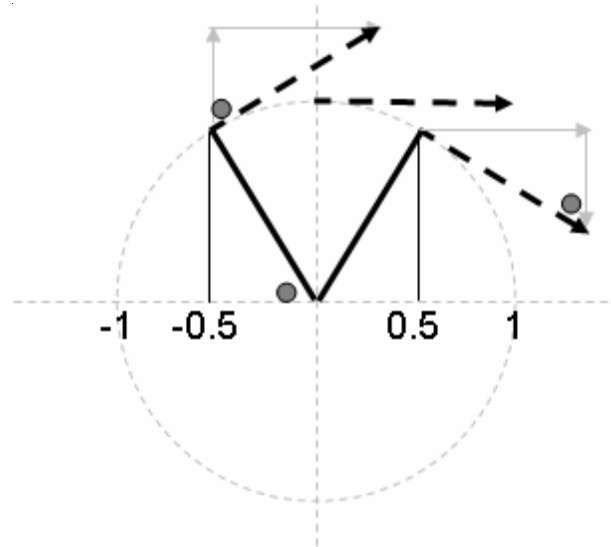
In theory, this lets us move the rod tip 7 times as fast as we are able to move our hand. As we saw in part 1 of this article, this means that the kinetic energy transferred to the line is 49 times (remember that  $E = \frac{1}{2}mv^2$ ) what we could have accomplished without the rod. The assumption here is that the mass of the load is much less than the amount of force that is being applied. If that condition is not met then the resistance of the load will prevent the multiplying effect from taking place.



Of course, obtaining 7 times the speed of our hand is a theoretical limit. There will be significant losses of acceleration of the line since the amount of resistance by the line is also multiplied by 7 and there are other losses due to air resistance (also multiplied) and other forms energy of loss. In addition, the path of the rod tip has a significant impact on the amount of energy that is imparted to the line.

In order to understand the impact of tip path and energy transfer let's consider two cases. In our first case the rod is rigid so the tip travels in a circular path as shown in the following figure:

*(continued on page 10)*



$$x^2 + y^2 = 1$$

$$y = (1 - x^2)^{1/2}$$

Here we have the rod traveling in an arc of  $60^\circ$ . The vector representing the force applied to the line at various points of the casting arc is shown as the dotted line arrows. The x and y component vectors at each of these points is represented by the gray colored arrows. As we can see that the x, or forward, component of force is at its maximum when the rod is in the vertical position and decreases as the rod moves away from this position. In order to calculate the amount of energy that is transmitted to the line from the rod we use the formula:  $W = E = F \times d$ , i.e. Work = Energy = the amount of force that is applied and the distance over which the force is applied for. We can see from the figure that the x component of force is directly proportional to the value of y at each point. Since the forward component of the force is not constant over the path of the rod tip we must use integration to determine how much force is applied as the rod tip travels from  $x = -0.5$  to  $x = 0.5$ . We obtain the following results:

$$\int \sqrt{1 - x^2} \, dx =$$

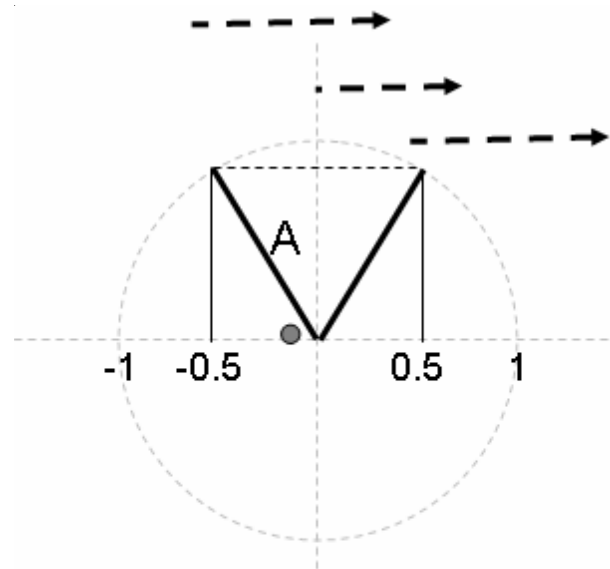
$$\frac{1}{2} \left( \sqrt{1 - x^2} \, x + \sin^{-1}(x) \right)$$

Substituting for x over the range -0.5 to 0.5 we find that the amount of energy that is transmitted to the line in the x direction is 0.774 of the total possible energy. This tells us that for a circular path with a  $60^\circ$  arc the amount of energy transmitted to the line is roughly 77.4% of the total work exerted on the rod by our hand/arm/body. The remainder of the energy is lost in the y direction because the y component of force applied on the first half of the stroke is canceled out by the y component of force applied on the second half of the stroke. The actual value would be somewhat less as this calculation ignores losses due to other causes.

(continued on page 11)

*Casting Physics (continued from page 10)*

Now let's consider the same casting stroke but with a flexible rod that allows the tip to travel in a straight line path (SLP). This is shown in the following figure:



$$y^2 = 1 - 0.5^2$$

$$y^2 = 0.75$$

$$A = (x^2 + 0.75)^{1/2}$$

In this case all force is directed in the forward direction. But in order for the rod tip to travel in this SLP we can see that the effective length of the rod must be shortest when the rod is vertical. Remember from our discussion of torque that the effective amount of force applied to the line will also decrease as the effective length of the rod decreases. This means that the amount of force applied to the line is represented by the equation for A (the effective length of the rod). Again, applying an integration to the function we obtain the following result:

$$\int \sqrt{x^2 + 0.75} \, dx =$$

$$0.5 \sqrt{x^2 + 0.75} \, x + 0.375 \sinh^{-1}(1.1547 \, x)$$

Substituting for x over the range -0.5 to 0.5 we find that the amount of energy that is transmitted to the line in the x direction is 0.912, i.e. 91.2%, of the total possible energy. We transmit 13.8% more energy to the line with a flexible rod than with a rigid rod if our casting arc is 60 degrees.

60° is a relatively narrow casting arc. The difference would be increased as the casting arc is increased. In addition the spring effect of the rod at the end of the stroke has not been factored in.

*This concludes part two of this paper. Thank you.*

# *ROD-SMOKE: A Mostly True Story*

By Floyd Dean

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It was early August 2006 in Bozeman, Montana, but it might as well have been 1866. My wife, Janet, and I were headed for the FFF Conclave. In our haste to get there we left the Conclave paper work at home and didn't know where it was being held. So, we wandered the streets looking for clues. I spied a young cowpoke in a sidewalk saloon working on his computer. We moseyed on over and asked if he would be so kind as to search the internet for the location of the FFF Conclave. He obliged. We went to his office around the corner to get a printout, and then returned to the Red Dog Saloon.

There we were talking at great length about flycasting and fishing when two young rod slingers who had been listening to our conversation approached us. They had fire in their eyes. "What's all this hog wash about flycasting?" said one of the handsome young strangers. "I challenge you to a casting duel with my cousin Ike, here." "You can't be serious," I replied. "Ain't funnin'," said the challenger. "Ike's the fastest rod slinger in town." We sized each other up. The young rod slinger asked, "You got a rod?" I said, "Yep, out in the buckboard... I mean truck." "Ya best get it out, ol' man." Now, I didn't want any trouble but gal dang nab it that put a burr under my saddle. So, I got out my trusty 5 wt, making sure the reel was fully loaded and ready for action.

"Where shall we have this showdown?" I asked. "I don't want any innocent bystanders wounded." The young whippersnapper answered, "In the alley back of the Red Dog Saloon near Boot Hill. That way they won't have to drag you so far."

Now, this was what you might call a *yuppie saloon*. A free wine tasting party was in full swing when someone shouted, "Rod fight out back in the alley." My wife grabbed a gratis glass of wine as did many others and they all stampeded out to see the ruckus.

Since I had been challenged, I said, "You go first." The young rod slinger wound up and ripped off a cast of about 70 feet. His style, although somewhat effective, would not have cut the muster of the FFF. I think he tore his underwear in the process.

I silently thanked those who have given me the advantage of FFF training as I drew my trusty 5 wt, cocked it into a backcast and fired off a forward stroke. Line smoked through the guides to about 99 feet. The backing tugged on the reel. My self-taught opponent's jaw dropped about a foot. He said, "Well, you got me on distance, pardner, but how about accuracy? You see that puddle over yonder?" "Yep, I replied." "First one to drop a fly in the puddle wins." Well, as it turned out, he couldn't hit a barn door from the inside and he left it wide open for me. After I dropped my fly in the puddle on the first shot, Ike's cousin turned to him, and said, "You were the best rod slinger I had ever seen until today. You been out-gunned, Ike. Old man, would you show us how you do it?"

The crowd cheered and all the good ol' boys shook hands. And that's how I happened to give the first FFF certified flycasting lesson in the back alley behind the Red Dog Saloon in Bozeman, Montana.

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*Floyd Dean is a Master Fly Casting Instructor from Sausalito, California.*

## *From The Editors*

The holidays are closing in on us. If you are looking for a gift for a casting instructor on your list, check out the new FFF gear in the Merchandise section of the FFF web site, [www.fedflyfishers.org](http://www.fedflyfishers.org). Or take a look at the great book offer by Jason Borger on page 27. This is a great deal for you and a nice donation for the FFF. If you are planning your next casting classes and want to try something new, look at the review of the Casting Analyzer on page 24. Master Instructors Bruce Williams, Larry Allen and Tom Harper have provided a great review and some ideas for use of this new device.

This issue of *The Loop* could be a holiday gift in itself! A fantastic physics review for casters from Walter Simbirski, a training/practice schedule for the two handed rod from Dan McCrimmon, thoughts on creep from Bruce Richards, accuracy techniques from Larry Allen, and thoughts on drifting by Gordy Hill are all packed in this final issue of 2007. Please enjoy!

The holidays are the time to enjoy our friends and family, maybe indulge a little, reflect on the past year and look to the future. We can remember what a great time we had at the last Conclave and look toward the next one. See what a great time Floyd Dean (page 11) and Gerald Puckett (page 28) had in Bozeman last year. Rod slingers and double haul dances----who knew such things went on at the Conclave?? The 2008 Conclave will be in Whitefish,

### **CONCLAVE 2008**

**WHAT:** Casting Board of Governor's Meeting.

**WHEN:** Tuesday, July 22

**WHERE:** Whitefish, MT

All CIs, THCIs and MCIs are invited to attend. We can't promise it will be exciting, but you can meet the Board and see what we do the rest of the year to administer the Casting Program.

Montana. The Casting Board of Governor's Meeting is on Tues, July 22nd. It is not too early to make plans to attend and consider sitting in on the CBOG meeting.

As you look toward the new year and think about your plans for 2008, consider attending one of the many fly fishing shows listed on page 32. If you are a Master Instructor, please volunteer to assist with testing.

Enjoy your holidays and remember to raise a toast all the new casting instructors in Italy and beyond (see page 33)! We will see you in 2008.

*Talk to you soon.  
Denise & Liz*

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**You can have a link** from your FFF website listing to your own e-mail address.

We welcome your submissions via e-mail.

Please attach a short (1-3 sentences) instructor biographical statement, including your location and Certification level.

Also be aware that the back issues of the Loop are posted on the Program's web site. Any illustrations should be in JPEG format.

*The Loop* reserves the right to decline any submission for any reason, and to edit any submission.

Submissions may be sent to the editors or the National Office:

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**The Loop** is a quarterly publication of the FFF Board of Governors for Casting Instructor Certification.



# *Practicing with Two-Handed (Spey) Rods*

*By Dan McCrimmon*

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Why practice? Well the old saw is ... “practice to be better”. Easy enough said and it has a nice ring to it. But, practice what to be better? Speycasting is complex. Where do you begin? Remember, speycasting is to single hand casting what a symphony is to rock and roll. There are many layers to a speycast, and many elements within those layers.

I do not know how many times I have seen people spend their entire day switch casting, or doing forward speycasts; always with the same hand up. No change of direction casts, no overhead casts, no simple dead line rollcasts. Just switch cast, switch cast, and switch cast. This is not practicing. Spending the day switch casting is only going to engrain bad habits and allow other skills to deteriorate.

Obviously, there is more to two-handed casting than a forward spey or switch cast. There is the Single Spey, Double Spey, Snake Roll, dead line roll casts, Snap-T, Snap-C, Circle casts and all the faults that you as an instructor should be able demonstrate and explain. This applies to both floating lines and sink tips.

How should you start practicing? The first thing to do is take a lesson or two lessons or more. There is nothing better than feedback from a good caster. This is how you find out where your weaknesses are. Later on, have someone different from your original mentor look at what you are doing. Make sure that whoever you are working with has the skill level that you aspire to. There really is not much point in working with someone who has the same skill level that you do or even fewer skills than you do.

What is next? The next thing to do is build a plan. Break the speycasts down to their major elements, and then break down each of the major elements into the smaller rudiments that make the big elements work.

Let us look at the major elements of a speycast (excluding overhead casts for the moment):

- a) lift
- b) D or V back loop
- c) anchor
- d) forward cast

Each of the major elements is composed of a variety of techniques; including good timing and appropriate use of power.

What would be some of the more subtle rudiments that make the lift, anchor placement, good D/V loops, and a powerful forward cast work?

*(Continued on page 15)*

*Practicing with Two-Handed (continued from page 14)*

Let us have a brief look at some of these.

a) **Lift**

The lift or initiating move is a key element. We learn proper lift techniques to ensure a smooth transition from the line downstream and in the water, to proper placement at the anchor point. Correct anchor placement opens the way to a strong D/V back-loop, which in turn helps us create a powerful forward cast. No matter which style of lift you may choose, you will always want it to be highly controlled and executed in a way that you can take full advantage of the rod's strength by loading the rod right down to the butt. We do this, no matter which lift technique we use, by keeping the hands ahead of the rod tip. This is of particular use in the **shotgun lift** and the **crescent lift**. A good lift assures correct anchor placement. Lifts, done in slack water are more difficult to do, particularly with heavy, sink tips.

a) **D/V back-loop**

The D/V or back-loop begins to form before the anchor lands. Generally, in all casts a good back-loop will be characterized by being fully tensioned, have no "wrinkles" or sags and be in the shape of a D or a V depending on style. There are exceptions to this shape formula when we start talking about constant tension casting and Scandinavian styles. Generally, a good well formed D or V directed straight back from the anchor and oriented 180 degrees to the target, works best.

b) **Anchor**

*The anchor point is the gateway to success.* Good consistent anchor placement with the leader perfectly in line with the target gives the caster more opportunity to align the D/V loop to 180 degrees with the target. Well-aligned anchor points also do not rob the cast of energy. Casts such as the Double Spey should be landed with the anchor correctly positioned. When executed properly, the D/V loop will pull the leader into alignment as a normal part of the cast.

c) **Forward Cast**

The forward cast aimed at the target is highly energized and has a small loop. Although there is some debate about what that loop size should be, I think that we would be safe in saying that a loop size of 2 to 3 feet is small. When practicing, the forward cast is delivered without the line sagging and dropping behind the loop. The line should also land on the water in a straight line, with the leader straight. If the line lands with a distinct curve in it, something has happened on your forward delivery, or during the formation of the D/V loop behind you.

Now we need a plan for practicing! In the chart below, a student of mine has laid out his practice schedule on a twenty day rotation. He has noted that the Single Spey casts and other casts should be practiced at different angles from the bank.

Most of the casts shown here should also be practiced using sink tips of Type 6 or greater. Also, highlighted at the bottom of the chart, are some items to watch for.

This is just one example of charting. There are many variants to this, so find a charting method that works for you. *Be honest with yourself.* If a cast is failing, or if an element of the cast is not just right, then fix it before you move on.

*(Continued on page 16)*

## 20 DAY TRAINING Rotation (Sample)

Note: All single Spey casts should be performed at a variety of angles such as:

Cast:	A Overhead 1.Left 2.Right 3.Loop Size 4.Distances 5.Tacking	B Roll Cast 1.Left 2.Right 3.Leader Straight	C Switch 1.Left 2.Right 3.Leader 4.Distance 5.Anchor 6. Loops	D Single Spey (Rh) 1.Anchor 2. Angles 3. Distance 4. Loops	E Single Spey (Lh) 1.Anchor 2. Angles 3. Distance 4. Loops
Day:					
1	x	x	x		x
2	x	x	x		x
3			x		
4			x	x	
5			x		x
6			x		x
7			x	x	
8			x	x	
9	x		x		x
10	x		x		x
11			x		x
12			x	x	
13			x	x	
14	x		x	x	x
15			x		x
16			x		x
17			x	x	
18	x		x	x	
19			x		x
20			x		x
<b>Watch Items</b>					
	No Ticking	Good Energy	Lift	+90 Degree	+90 Degree
*Snap Casts	Good Tracking	Straight Leader	anchor	+45 Degree	+45 Degree
*Circle Casts	Smooth Pick-up	Smooth Roll out	V-loop	Get anchor in line	Get anchor in line
	* Small Loops			Practice L's and crash	Practice L's and crash

as +45 degrees and +90 degrees.

F Double Spey (Rh) 1. Pirouette 2. Loop 3. Distance	G Double Spey (Lh) 1. Pirouette 2. Loop 3. Distance	H Snake Roll (Rh) 1. Anchor 2. Loop 3. Distance	I Snake Roll (Lh) 1. Anchor 2. Loop 3. Distance
X		X	
X		X	
	X		X
	X		X
	X		X
X		X	
X		X	
X		X	
	X		X
	X		X
X		X	
X		X	
	X		X
	X		X
X		X	
X		X	
Both Float and Sink	Both Float and Sink	No Hook	No Hook
Anchor placement	Anchor placement	Done smoothly	Done smoothly
No Wrap around for D/V	No Wrap around for D/V	Watch anchor crash	Watch anchor crash
Let V form. Don't rush	Let V form. Don't rush	Let rod load	Let rod load

**Other Items to Practice:**

√ Loading the rod to its maximum potential by trying to keep the hands ahead of the tip

√ Smooth acceleration and delivery of the cast. Look like a pro.... go slow!

√ Make real V and D loops. Know the differences and how they are created

√ Consistency of loop size

(Continued on page 18)



### Removal of Random Elements:

Make sure that you are not all over the map in timing, power application, and anchor placement. Start thinking about “locking down” some factors while you practice; look at your lines, rods and leaders.

- a) *Consistency of line type:* Decide on which line you would be most comfortable using. Changing lines from one make or design to another adds too many variables while you are practicing. Lock it down. Decide on the appropriate belly length, manufacturer, style, and weight for your rod.
- b) *Consistency of rod length and manufacturer:* Find a rod that works for you and can do the job. Ask people whom you take lessons from or who are your mentors what they use. A small soft rod with a light line may not be of help if you are trying for big distance. One thing that may happen though is that as you get better, you may decide to try a more powerful rod. Just remember that that new rod needs to be worked with and that can take time.
- c) *Leader length:* Be consistent on your leader length. Many people like staying at 15 feet of leader. If that is where you want to be, then practice with 15 feet as much as possible. Be careful not to continue practicing with a leader that has broken off. It will just mess up your timing when you put on the right length again. Choose a leader that is appropriate for the line weight and that will turn over cleanly and lay out straight. Note: It may be a good idea NOT to use a wool at the end of your leader. Why? Because the wool will often dampen the sound of a bad cast. That crack you hear behind you is telling you something. It is telling you that you are loading the tip of the rod and not the butt. The tip is actually snapping the leader right off the water. Hence the crack! When starting your forward cast, start with your bottom hand moving ahead of or leading, the tip and the rod will load more smoothly into the butt. No crack! Better power.
- d) *Start short: “Start short... work long”* I do not know who said it first. However, it is sage advice. Do not start out by trying to make hero casts. Start out short, with something like 45 feet of line, or any short length that will begin loading the rod. Once you have mastered all the casts at that length, add some more line. However, not a lot more; and start all over again. When you are confident you have that length under control, strip another length out to the first guide. Do this slowly and be honest with yourself. Make sure you have all the casts and elements under control before moving on.
- e) *Consistency of line length:* Once you are in your comfort zone as far as line length is concerned. Select a length that works within your objective. For example, the THCI test has many casts that require 80 feet or more of line, measured from the caster to a target placed at 80 feet. The actual line length may be in excess of 80 feet when you take into account rod angle on the delivery cast and some slack. Make several casts to 80 feet. Line straight, leader straight. Mark your line and use that mark as a point you will always use to practice. Later on, you may want to add more line, but it is always best to be completely comfortable at the 80 foot mark.

*(Continued on page 19)*



*Practicing (continued from page 18)*

*Be consistent when practicing.* Try to remove as many random elements as you can. Always practice in frog water when you are first starting. Make it tough on yourself. If your lifts are working in slack water, you will have more success in aerated water from fast current, this is particularly true for heavy sink tips. Practice from both banks, alternating with either hand up.

*Measuring success*

Often it is difficult to spot problems in your cast. Some very good casters seem to be able to adjust to problems on the fly. However, that takes many years of experience. To them, the objective is to deliver the fly to the target. However, just landing the fly on the target is great for fishing, but not so great for instructors. Students are keenly aware of what their instructors are doing. So if the instructor crashes their anchor, wraps the D/V loop behind them and through the grace of god and years of experience manages to get the fly to the target, it does not set a great example. This is particularly true when giving demonstrations in front of a crowd. Good instructors are expected to perform each task smoothly, correctly and with confidence. You will be held to a higher standard than your non-instructor peers.

So what can we do to measure our skills and abilities? We have already talked about getting lessons. We have explored the wisdom of having a good mentor/instructor. Now we will look at some physical means to assist in training and practice.

*Always practice in frog water.* Make it tough on yourself. If your lifts are working in slack water, you will have more success in aerated water and fast currents, this is particularly true for heavy sink tips. When you have mastered casting in slack water, then start practicing in water with a current. Practice from both banks, alternating with either hand up.

*Staying on the Straight and Narrow:*

Even the best casters, instructors and mentors can misjudge what is happening with your rod, rod tracking, loop direction and anchor placement.

This can be frustrating for everyone involved. Particularly the caster who may be trying to fix a non-existent problem or may have ignored a real problem they have not noticed and that has escaped the attention of their mentors. There must be a way to quantify key elements of the cast.

**The Kit:**

		
Leash anchor x 2	Yellow Poly Target and Tracking Line (floating)	Half tennis ball and tent peg used as Anchor Target

*(Continued on page 20)*

*Practicing (continued from page 19)*

### **Leash Anchors (2):**

Leash anchors can be found in most pet stores. They are ideal for sinking into gravel or sandy bottoms and act as a good way to tether the bright poly rope.

**Polypropylene Line:** The target line, or axis. Used as a straight-line marker to the target, tethered by the leash anchors.

**Half Tennis Ball and Tent Peg:** This is the anchor marker. The tent peg holds the bright half tennis ball in place. The half ball is a good target and helps hold the peg in place when there is a current. It also stops the leader from wrapping around the peg.

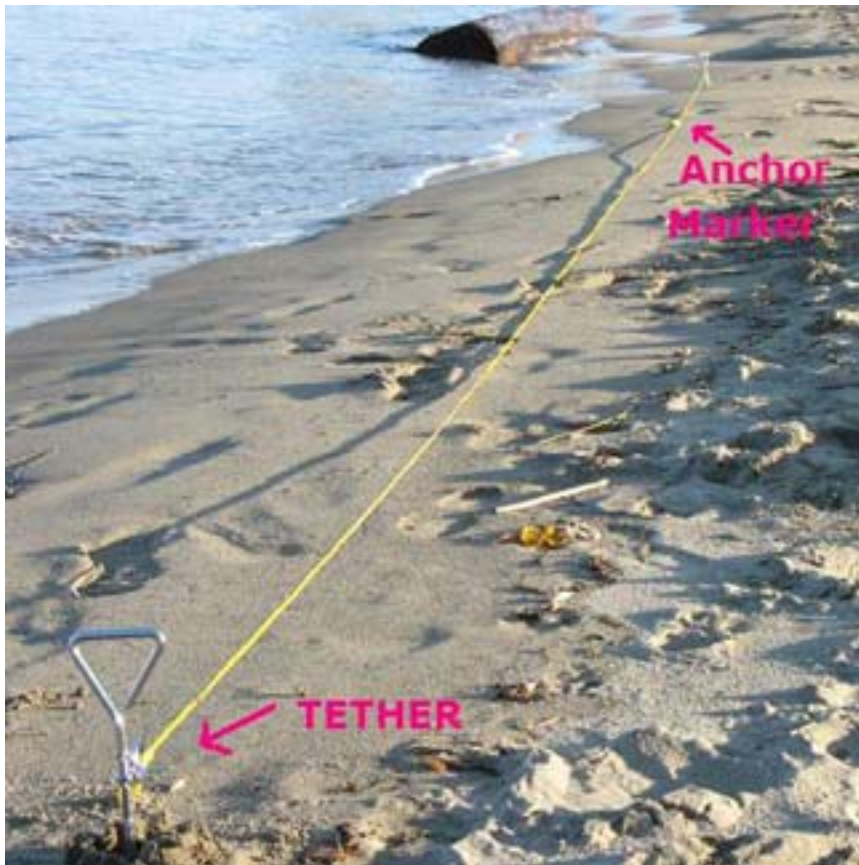


Image of practice rig: Here is the full rig assembled and moved up onto the beach for a better view.

### **How to Use:**

The training rig consists of a line (poly rope), two tethers (leash tethers) and an anchor marker (tennis ball and stake) Although this training rig in the picture, is shown on the beach, it is intended for use in the water. The leash tethers do a great job holding the line in place. Try to use this rig in slack water. Obviously, a strong cross current will cause the poly rope to bow, so use it primarily running downstream along the bank.

*(continued on page 21)*

**Setting up:**

Place the anchor marker (tennis ball and peg) about 5 or 6 feet from the downstream end. Step away from the anchor marker so that it is about one rod length away and 45 degrees in front of you, a standard anchor spot. Remember, your feet should always be pointed at the intended target.

**Anchor Placement:**

Use the anchor marker as a target when you do your lift and place the anchor. Start with a simple Forward Speycast. See if you can hit the anchor target every time. Land the anchor smoothly with the line ascending toward the rod tip. Try not to land the anchor flat. Watch for crumpled (crashed) anchors or anchors that skip off the surface.

While standing in the same position with the anchor point a rod length away and 45 degrees from your body, try casting a Single Spey. See if you can land the anchor on the target consistently. Check to see if you have enough energy in your back loop to straighten the leader out and put it in line with the target. You can check this by looking at the leader's orientation to the target and rope. If the leader is off angle from the rope, it may not be lined up to the target.

**Rod Tip Path:**

When using the training rig, it will soon become apparent as to whether your rod tip is traveling in a straight line. On the backcast, you will either see the line arc in toward you, or out away from you. The fly line will not come back parallel to the rope. On the forward cast, you will see the line leaving the water and hooking either toward the rope or more commonly, away from the rope. The idea is to see the line either land on the water parallel to the rope, or in the case of the forward cast, leave the water parallel to the rope. Getting your rod tip to travel in a straight path is key to creating a straight-line trajectory toward the target.

**D/V Loop Orientation:**

Beginning with the Switch Cast. Land the anchor on the target. Perform the cast several times until you are consistently hitting the target. Now have your instructor or mentor have a look at what is happening with your D/V loop as it comes back. Is it tracking straight down the line behind you? Or does it swing out and away from you. Or, even more ominous, is it wrapping behind you? The marker line will not be fooled, if you are off track, it will become apparent. Keep practicing until the back-loop is consistently parallel to the line.

Depending on your style, you may notice that as you lift the rod, the fly line will move away from the rope as you come up and forward. Many casters consider this a waste of energy. Try various rod angles as you come back and forward. See how close you can get to coming forward right over top of the rope.

**Single Spey:**

After you have the feel for your loops orientation along the target line by doing Switch Casts, try different Single Spey casts. Land the anchor on the target and see where your back loop is going. Did the leader crash or did the line hook upstream instead of being straight and under tension? Did the back loop hook to the right or left?

**Double Spey:**

The training rig is a useful tool in practicing anchor placement and D/V back-loop orientation. Position yourself upstream from the training rig. The rig should be pointed at your target. The anchor target is in the normal position about a rod length away and 45 degrees from your body. Make your lift, see if you can land the fly on the anchor target. When you move the rod back toward the anchor point did the line come back straight over the rope, or did it hook behind you?

*(continued on page 23)*

# *The Creeps*

*by Bruce Richards*

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A recent week trout fishing with some friends reminded me that a chronic problem many casters have when fishing is rod ‘creep’. Nearly all of us creep now and then, and it limits distance, accuracy, and causes lots of leader tangles.

OK, what is creep? Creep is a term instructors use to describe forward motion of the rod that happens after the backcast stops, but before the following forward cast starts. What this does is effectively shorten the stroke on the forward cast. During false casting this may not cause a big problem, but most casters add a little extra power to the final cast and this extra power, applied through a creep-shortened stroke, will cause problems.

The first, most obvious, visible sign of creep is a tailing loop. Tailing loops are more wind resistant than good loops with parallel top and bottom legs. This extra wind resistance will reduce total distance cast, and will often also prevent the fly and tippet from delivering as it should. Tailing loops will also often foul tangling the leader and/or causing ‘wind knots’ that will weaken your leader.

OK, so how do you know if you are creeping, and what do you do to fix it? First, if you see that you are throwing tailing loops it is very likely that you are creeping, especially if you are an average or better caster. You can also watch the butt of your rod while casting. If you are casting properly there should be a noticeable pause in the motion of the rod after you have stopped it to form the back loop. If you see that your rod starts to move forward immediately after the stop, you are creeping.

For a short cast the delay will be short, for a longer cast, longer. It is important that the rod not start to move forward AT ALL until the back loop is nearly straight. When the loop is nearly straight the forward cast can be started with a slow, smooth rod acceleration. It is unusual for casters to creep on the backcast.

The creep can be difficult to analyze; you must watch the butt of your rod closely. Any forward motion of the rod before you are ready to make the next cast will cause trouble. Remember that the rod is a long lever, a small amount of motion at the butt translates into a much larger motion at the tip.

Curing the creep is a big step in becoming a better caster, but there is a further step that can help even more, especially if you need more distance and/or it is windy.

If a little forward motion too early causes trouble it would seem that a little motion in the opposite direction might be helpful, and it is. This is called ‘drift’ and is a technique all good casters use to make their best casts. After the rod has stopped on the backcast allow the rod to move backward slightly by moving your hand and arm back a little or by bending your wrist a little more moving the rod tip back and down a bit. By adding a slight drift to your cast you will be able to add extra power to the delivery cast without throwing tailing loops, resulting in more distance and better fly delivery. So, trade in your creep for a drift and you’ll be very pleased with the results.

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*Bruce Richards is the Chairman of the Casting Board of Governors.*

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### **Snake Roll:**

Move the anchor marker to about the midpoint of the rope. Stand so the anchor marker is on your downstream side. You should position yourself so that the anchor marker is in its traditional location, one rod length away and at about 45 degrees from your body. The rope will be pointing to a target mid-river. Your fly line should be downstream (across the poly rope). Now lift and do a snake roll. Have your spotter take note of the fly line orientation to the rope.

Did it hook behind you? Did the front part hook toward you? Where did you anchor land in relation to the anchor marker?

### **Snap-T and Snap-C Casts:**

For these casts you will set the rope pointing out to mid-river. The rope and the anchor target should be positioned upstream from you. The anchor target at about 45 degrees and a rod length away. The fly line should be downstream with all slack removed. Do the snap-T or “C” and see if you can land the fly on the anchor marker. Check to see if your back loop is running parallel to the rope and/or 180 degrees to the target. Did the D/V loop wrap behind you? Did it swing out (upstream) from you?

### **Overhead Casting:**

The practice rig obviously has many uses. It can also be used to help in the Overhead cast. Stand with the line on your casting side. Face your target. Begin casting and have an observer let you know if you are tracking overtop the rope. If you are by yourself, simply drop the line after it unrolls at the back or the front and see where it lands in relation to the rope. Is it parallel to the rope? Does it cross over the rope? Is it curved?

The practice rig is a very good tool for adding precision to your casting. It is simple to make and easy to transport. Use it often.

We have looked at the major components of two-handed casting and examined some of the subtler aspects of casting. We have discussed breaking the casts down and practicing each component. We have also discussed how to create a plan to ensure good practice sessions with clearly described and achievable goals. And, we have looked at a way of empirically measuring our casting efficiency through the use of a simple training rig.

**The rest is up to you! Practice, practice, practice.**

*Oh, did I mention that you should practice?*

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*Dan McCrimmon is a member of the Casting Board of Governors and is a THCI Program Examiner from Vancouver BC.*

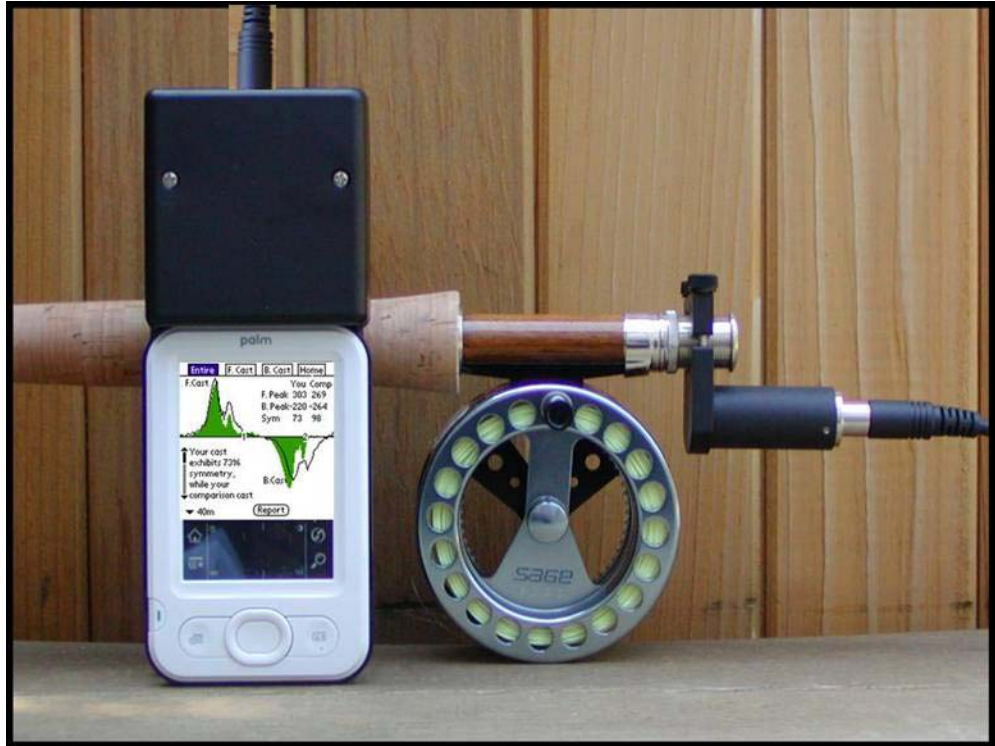


# PRODUCT REVIEW: CASTING ANALYZER

*Review By Larry Allen, Tom Harper, and Bruce Williams*

The Casting Analyzer is a valuable addition to the list of tools available to the flycasting instructor. The Analyzer was developed by Noel Perkins, Professor of Engineering at the University of Michigan, with the help of Bruce Richards, product development engineer for Scientific Anglers, 3M Corporation, and Chairman of the FFF Casting Instructor Certification Program.

In essence, the Analyzer measures and displays the speed (i.e. changes in speed) of the rod through both the forward and backcasting strokes. More precisely stated, it utilizes a gyro to measure the speed with which a caster rotates the rod through the casting stroke measured in units of degrees per second. The gyro is mounted on the fly rod and connected by a cord to a Palm Pilot. The results are initially displayed on the Palm



Pilot, and it is also possible to feed the Analyzer results into a computer and print the values and graphs for the student to keep and compare as casting improves. The student casting profile can further be compared to the database of “expert” caster profiles to reveal similar strengths and areas that might be improved.

The Analyzer measures and graphs the following information:

**1. Smoothness Ratio.** This metric captures the rate of rotational acceleration of the rod during the back and forward strokes, which generally describes the smoothness of power application by the caster. The optimal rate of rod acceleration has been the subject of wide interpretation by casting experts, largely due to the fact that prior to the development of the Analyzer there was no efficient way to quantify what was actually occurring during a cast. Thus what one noted instructor described as a rate of acceleration which *felt* like 0...5...10...60 (analogous to car acceleration in MPH) was actually *measured* as a much more linear rate of acceleration. This measurement accuracy should help instructors communicate more accurately and effectively the mechanics of casting.

*Bruce Williams, Larry Allen and Tom Harper are FFF Master Certified Instructors who live in Phoenix, AZ. They cast and teach together frequently. They are presently teaching a course on fly fishing at Scottsdale Community College.*

*( Continued on page 29)*

# *FLYCASTING ACCURACY TECHNIQUES*

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*by Larry Allen*

During the 2007 Conclave casting games, I was frequently asked about techniques for playing the 5 weight ACA game. I thought I would share some of the tips and techniques that I have been collecting. I was introduced to the target games by my mentor and casting boss, Joe Libeu about three years ago. So many people have helped me that I cannot list them all so there are many more than the ones that I will mention.

## **Target Casting Principles.**

- Cast in a vertical plane so that the uncurl of the loop is into the target. This is not to be confused with a parallel loop but that the parallel loop is in the vertical plane. A parallel loop in an off vertical position will try to make varying degrees of a “curve” or “tuck” cast. This would be true in even a slight deviation from the vertical. At 50 feet, the slightest deviations will show dramatically.
- I think that all the good casters that I have watched triangulate the rod, their dominant eye and the target. For me and other new casters that I watch, the tendency is to try to cast in front of your eye so that you “sight” the rod blank against the target like a gun sight. This does not allow for depth perception. Joan Wulff wrote about this in her “Fly-Casting Accuracy” book but I did not get it until I began target casting. To get the good depth perception, hold the rod slightly off to the side from your eye (but still in the vertical plane) and then for the triangulation, point the reel exactly at the target. The cast comes slightly from the outside to the inside and gives you the depth since you see the fly come in from the side.
- Tempo – Steve Rajeff suggests making the backcast slightly faster and then slow down for the front cast. This lets you “feel” the tug of the uncurl in the back. The perfect backcast lets the fly straighten on the backcast but is not allowed to drop in trajectory. This lets you start the front cast with a fully loaded rod. A loaded rod will require fewer muscles (and less stroke length if this word still exists after Bruce and Bill get done?) to make the front cast and will be more accurate.
- Rod position and distance relationship. For the close casts, the rod is inside the shoulder and in front of your body. As the distance lengthens, you end up just even with or outside the shoulder as stroke length for you dictates.
- Right hand casters keep the right foot forward. This helps eliminate any body twisting during the cast. Most people do rotate their body around to the left to free the wrist movement. If you stand square, then the right thumb and muscle alignment restricts your wrist movement and stroke length. If you are not far enough around to the left, you can tell because your forearm will get “frogged” muscles. A good position will have a vertical rod with relaxed muscles during casting. Chris Korich likes to feel that his cast is done with all large muscles of the shoulder and body.

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*Larry Allen is a Master Instructor from Mesa, Arizona and can be contacted at: flatsman@cox.net*

*(Continued on page 26)*

**Acquiring the target sequence.** This was taught to me by John Napoli a former ACA All American.

1. Double haul to a spot that looks like it is over the target about waist high.
2. Change to casting hand only and begin to “hover” (the hover is a slightly overpowered front cast that makes the fly stay at the uncurl height just long enough to see its position above the target). At this point you add or subtract line until you feel that you are over the target’s front edge.
3. Now lower the fly about a foot above the target (you would no longer hover as this would not be a smooth cast) and raise the backcast to maintain a 180 degree path front to back. If you are not sure that you are parallel, then lay the fly down and see that the fly lands first. If the line or leader lands before the fly, then you are low in the back cast plane. Tim Rajeff is always checking this relationship and teaches it in even his beginner classes.
4. Cast slow enough that you can see the line uncurl and clearly see the fly. If the distance does not seem right, then start to hover again and do fine adjustments.
5. I notice that most good casters look up at their front stop and watch the forward cast loop develop and then follow it down to the fly. Watching over the target is almost impossible as the fly comes in to the window of vision for only a fraction of a second.
6. Now that you have the distance and trajectory, next is to “cut the cake”. This means get your cast in the exact middle of the target before you consider a lay down.
7. The lay down. Now you have the distance and the middle of the target picked out. When you are ready to lay the fly down, you must not change anything other than a slight tilting of the casting plane. You have been casting 1 foot high and when you change to the surface of the water, you must also change the plane in the backcast to be slightly higher. John told me to imagine the fly landing 2" below the water surface. This will allow for a firm lay down that is resistant to side winds but still allow the fly to float when it lands. I must note that all of us that have to practice on grass, generally cast too fast and too hard. When we get to water, the fly sinks and we get a deduction.

Some other thoughts: Last year when I cast the Northwest Regional, Steve Rajeff gave me much help. He would walk by while I was casting and have me point the reel at the target. This is a constant struggle for me to keep the reel from being out. If you think about it, the reel pointing out has the tendency to set up a little elliptical path of the rod tip and an uncurl that is not truly vertical and at the target.

**Stroke Length.**- we spent most of our casting life worried that there will be **too much line for the amount of stroke that we are using**. Yes this causes tailing loops since the power of this short stroke + the weight of a longer line collapses the rod tip and makes a concave tip path.

When you start to target cast the problem is the opposite. **Too long of a stroke for the amount of line that is being used**. In target casting this is a problem since the longer the stroke, the greater the chance for a tracking/timing error. We are so concerned with the tailing loop that most of us overkill the stroke

*(Continued on page 28)*

## *Casting Accuracy (Continued from page 26)*

length the other way for insurance.

Now I will spend the rest of my casting life trying to shorten my stroke (and still not tail).

Steve Rajeff worked with me on the Wet Fly game at the 55 foot target, changing my back stop from 2 o'clock to nearly 12 o'clock which felt like I would hit either me or the rod. Now I am almost stopping straight up and the cast has improved.

You are able to use shorter strokes for a given length of line by being very parallel, getting max rod loading with better timing and tempo. The efficient cast does not need as much stroke length as the inefficient cast.

One of the nice things that has happened to me since target casting is that many of these techniques have spilled over into my fishing giving greater enjoyment and success.

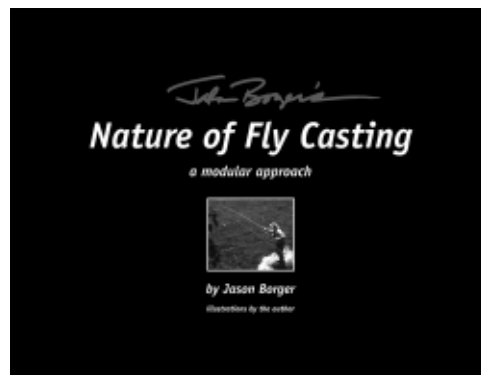
### **References:**

Golden Gate Casting Club: Steve Rajeff's **Methods of Evaluating Fly Casting Techniques**

Joan Wullf's **Fly-Casting Accuracy** book

**American Casting Association** web site

## **Special Book Offer**



**Jason Berger is offering his book, *Nature of Fly Casting*, to Certified Casting Instructors with a special FFF donation for each copy sold.**

**For Instructors in the U.S., the book is available for US \$20 shipped and personalized. For Instructors outside the United States, the book is available for US \$15, but buyers will have to pay actual shipping charges (determined on a per-order basis).**

**The book can be purchased from the front page of Jason's Web site ([jasonborger.com](http://jasonborger.com)). *The FFF will receive a US \$5 donation for every book purchased by an FFF Instructor.* PLEASE BE SURE TO NOTE that you are an FFF INSTRUCTOR on the order form so that the donation can be properly credited.**

# DOUBLE HAUL DANCE

by Gerald L. Puckett

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Western regaled square dancers promenaded in the Civic center next to the casting pond in West Yellowstone, Montana, where a sizable group participated in casting instruction under the guidance of the honorable Bob Jacklin. I was very fortunate to be there assisting him.

Cool breeze and Montana big blue sky surrounded rod waving people, learning curves to be measured by big smiles. One quite reserved man (picture John Wayne) stood silently in the evening shadows watching intently. I ask him if there was anything he would like to work on. He smiled and said, "I have never been able to double haul, I want to learn the Double Haul." To which I responded, "This, my friend, is your day to learn the Double Haul!"

We proceeded to talk while he made several excellent tight loop false casts to about 40 feet. Having made my point about having a sound cast before attempting to learn the double haul, we proceed via Mel Krieger's Down/Up pantomime. After solo practice I handed him his fly rod and encouraged him to give it a try. He started with the coordination of a spider trying to learn the Texas two step but slowly made progress. I could sense his frustration so I suggested we take a rest break while we talked, enjoying the square dance music in the back ground.

People had gather around listening to our discussions and then Bingo—Inspiration! I ask 'John' if he liked to square dance to which he replied, "I love it!" I ask him if he would like to do the "Double Haul Dance" with me and he said sure. I announced to the learning group that I was in touch with my feminine side and secure in my manhood! So I took his right hand in my left hand and his left hand in my right hand. Using the rhythm of the square dance music I started mimicking the double haul movements, mildly humming one, two, pause, and three (Adagio- slow, leisurely). After several repetitions I

ask him to lead where I would offer subtle corrections. Again, after several reps I ask him to teach me and correct errors which I would introduce. Most excellent! Then I repeated the entire sequence in Andante, (moderately slow, a walking speed), increasing tempo to Allegretto (moderately fast, lively, faster than andante but slower than allegro which is lively, brisk, and rapid). We will save allegro for the distance cast, a little advanced for the dance.

During the dance sequence, as appropriate, I would hum, short line, short stroke, short haul, short pause, increasing the range of motion, medium line, medium stroke, medium haul, medium pause and so on in "Grazioso" (done gracefully as one would in a waltz).

'John Wayne' was doing the double haul dance and I liked what I was seeing so suggested he go try this with his fly rod. From a short distance I observed a dancing duet between his line and rod hand with a Texas size smile on his face. I yelled, "My friend that is the double haul!"

He laid down his rod, ran over gave me a hug that squeezed the air out of my lungs and started dancing and singing, "I can do the double haul, I can do the double haul! Thank you, thank you!" Now I ask teacher, does life get any better than this!?!

Dr. Gordon Hill, FFF Casting BOG, shared with me an experience he had while on a flying trip to Venezuela, "While there, one evening, we attended a concert at a local dance hall. My son and nephew got up on the stage and danced a, "double haul" dance to the music. It was contagious. Before long over 100 people in the dance hall were doing it with perfect timed, DOWN-UPS"! I would hope that more than 100 teachers learn the "double haul dance" and dance!

*(Continued on page 31)*



*Review (continued from page 24)*

**2. Deceleration and Stop.** This measurement reveals whether or not the student is coming to an abrupt, definite stop at the end of each stroke. Failing to come to an abrupt stop results in wide, poorly formed loops or “moon loops”

**3. Cast Arc, Creep and Drift.** The Analyzer captures the occurrence of creep (and drift) after the stop. Creep, by inadvertently shortening the stroke, can result in tailing loops. Drift can improve rod and line speed, and therefore the distance of a cast.

**4. Symmetry Peak Drift.** This measurement depicts the symmetry of the forward and backcasting strokes, describing how closely they mirror one another. Lack of symmetrical strokes can result in weak, inefficient casts. Additionally, the caster can learn if he/she is generating sufficient rod speed to achieve the casting distance implied by the length of the stroke.

**5. Rod Load** measures the amount of rod flex created, and where it occurs during the casting stroke.

**6. The Cast Profile** is a picture in graph form of the cast through the entire back and forward casting stroke.

One of the greatest benefits of the Analyzer is the ability to compare the student’s cast with the cast profile of expert casters. The student can see the variance in values reported by the Analyzer for his/her cast and the values produced by the expert caster. This provides valuable insight into what aspects of the cast the student needs to focus on during practice. The results can be saved so that the student can measure his/her progress.

The Casting Analyzer is a powerful new tool, and it takes a little time and experience to learn how to interpret the data. The casting instructor must become fully familiar with the Analyzer and what the recorded values mean in terms of possible casting faults or areas where improvement can be achieved. While much information is available on the product website ([www.castanalysis.com](http://www.castanalysis.com)), the Analyzer purchased by the authors did not include an instructor’s manual that thoroughly and step- by- step describes how to

perform or interpret each function. It is hoped that a prospective manual would visually depict a wide variety of actual cast values and screen graphics; and discuss their interpretations. A database of expert casts would also be of great value.

Several months ago, we employed an Analyzer at a casting clinic for one of our local Phoenix fly shops. The shop promoted the event by inviting anyone with an interest to: “Come and get your cast analyzed by FFF Certified Instructors. The instructors will help you improve your casting”.

Letting people cast with the Analyzer was the focus of the clinic. An instructor would also watch the casting and make notes of what they observed. When the caster was finished, the Analyzer results were printed off and reviewed with the student. The instructor explained any faults revealed by observation or the measurements of the Analyzer.

We all noted that the observed results were close to the printed results of the Analyzer. The exceptions were typically more subtle forms of creep and asymmetry, which were more easily detected by the machine, and would require a longer look by the instructor to detect.

The impression with the casters was very good. The people who came for help seemed willing to accept the need to make changes suggested by the high tech Analyzer, supported by charts they could see, discuss with an instructor, and take home for further study.

We feel that the Analyzer is a wonderful tool, especially combined with some form of image printer and a comprehensive users manual. The authors also think that it could be used in conjunction with video recording to help students associate the casting profile with the actual image of the cast. Useful as it is, the results are not self explanatory, and will not take the place of the instructor or his/her other tools and teaching aids. Our casting instructor group in Phoenix has purchased an Analyzer to help us diagnose casting faults more quickly and accurately, thus enhancing our ability to teach.

# To Drift or Not to Drift

By Gordy Hill

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A good way to increase stroke length, rod arc, and tip travel for a long forward cast is to get the rod tip way back (not back and down) on or immediately following the backcast. As I see it, there are three ways of doing this. The caster's choice of one of these three as a matter of style.

**1. Drift** This can be seen as repositioning of the rod between strokes. After the stop of the backcast and the start of loop formation at the rod straight position (RSP), the caster elects to move the rod tip back in the direction of the unrolling loop. This not only gains much greater tip travel for the following forward cast, but it gives a bit of, 'hang time,' during which the caster can also reposition the casting arm as a set-up for the forward cast. While this technique can be used effectively when casting with many styles, it may well be most commonly used with elbow forward/vertical rod plane or off vertical rod plane styles. I never used a drift move until I spent time with Joan Wulff. I find the drift magical when I switch to a vertical casting style to solve certain casting and fishing challenges.

**2. Layback** Popularized by Gary and Jason Berger, this is another technique to get the rod tip way back for increased stroke length, rod arc and tip travel for the forward cast. Jason Berger defines layback as, "a controlled moving of the rod back and towards the horizontal after the back cast has been made..." (The Nature of Fly Casting, pp. 232-233) This method, I've noted, is most commonly used with vertical or near vertical rod plane styles of casting.

**3. Placing the Rod Tip All the Way Back During the Backcast** I find myself getting ever closer to actually doing this as I try to smooth out the blend between my back cast and the drift. It is hard to even sense or see the, *stop* prior to the drift.

With much of my salt water casting using a low elbow/ off horizontal rod plane casting style, I'll often simply bring my rod all the way back and up a bit and stop there. When backcasting into a wind, I'll literally thrust my rod tip back. This eliminates a true, drift and accomplishes the whole maneuver with one motion. I use this method when making a backcast presentation. More than 30% of the fish I catch on the flats are caught on a backcast presentation.

Most of the Australian salt water fly fishermen with whom I've fished use this or an even more horizontal rod plane style than Lefty Kreh. Rod Harrison (often thought of as the, "Lefty Kreh of Australia") has honed this style to perfection. I was amazed by the power and accuracy of his casts as he joined me here in the Keys for tarpon fishing. He uses no drift move at all. This style suits his body habitus well — he is short, stocky, and powerfully muscled. This is sometimes referred to as *Lefty's stab*. It is part of Lefty's default casting style.

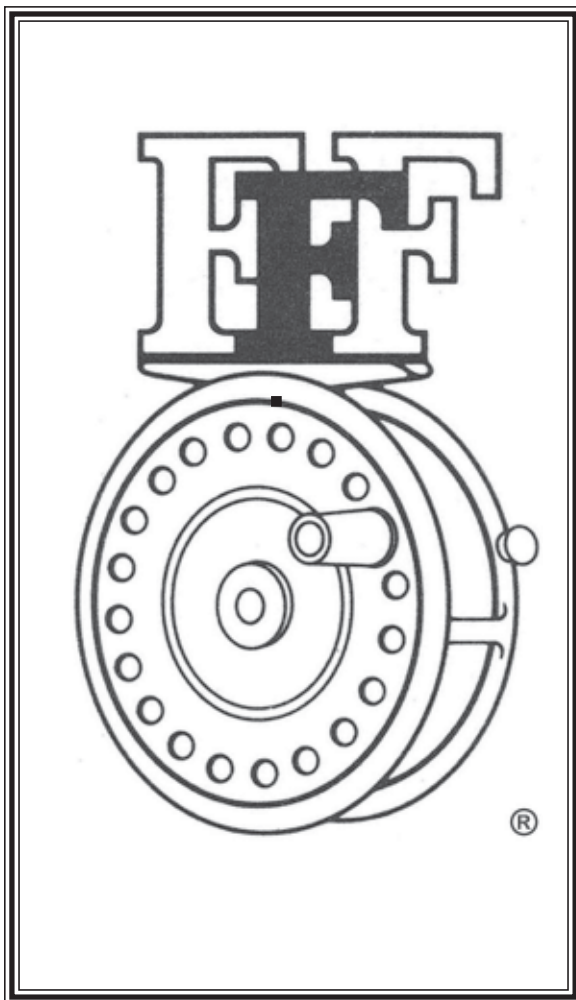
Ed Jaworowski has written an article called, *Forget the Drift* for the Oct/Nov. issue of *Saltwater Fly Fishing* magazine, in his Casting Column, pp 22-23. His opinion is that when using a horizontal rod plane style, the drift is unnecessary. He states, "A flycaster executes the drift by commencing with his hand in front at point A, moves rearward to point B and stops, then while the line is unrolling behind him, drifts his rod hand to point C before beginning the forward cast. My contention is that going directly from point A to C would make a longer stroke and would not incorporate any extra movement, thereby making the backcast easier just as going forward from C to the finish makes the forward stroke easier." Reading the entire article provides insight into his (and Lefty's) style and philosophy of casting.

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*Gordy Hill lives on Big Pine Key in Florida and is a member of the Casting Board of Governors.*

*(continued on page 31)*

Each of these methods provides increase of potential tip travel needed for the forward cast. Each helps negate the likelihood of creep (which will shorten the stroke length and rod arc for the forward cast.). In addition, even without creep, each method helps prevent a forward stroke length which is too short for the amount of line carried and the distance of the cast, leading to a lessened incidence of tailing loops. To eliminate any one of them would result in diminishing the complete fly fisherman's repertoire of techniques needed to solve the many casting challenges, which appear in the real world of fly fishing.



While the Double Haul Dance has entertainment value, I would encourage you to think of it in terms of an additional trick in your teaching bag.

To lend credibility to this teaching concept, as a forty year veteran flight instructor, I used interconnected dual flight controls transferring flight behavior to the student until he learned to fly. The landing phase has a definite Down/Up movement that needs to be taught through the controls, with the up movement being of the 'up' most importance! The point being that the Double Haul and it's subtlety can be demonstrated in the Dance, assuming you have acquired a proficient double haul.

By using this teaching technique one can hopefully transfer haul behavior: smooth control, balanced haul and stroke length with the work load evenly divided, appropriate pause with slack control in line hand and minimum friction in the guides, along with sound essentials in the cast, the most important being the Straight Line Path of the rod tip.

If this is to be a viable teaching technique I suggest one practice the double haul right handed and left handed, about forty feet with each hand. You do not have to be a Tom White! With a student, just going through the double haul motions slowly during the dance may start the coordination necessary to learn them. You might want to find a practice partner and double haul dance. Start with the waltz! I hope you will find the dance useful in your teaching career. Who says you can't have fun while teaching!

Should we by chance meet, I will be glad to Double Haul Dance with you until you learn to lead. I will even throw in some fancy foot work if you promise not to call me sweetie!

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Gerald L. Puckett is a CCI, retired Southwest Airline Captain, Flight Instructor, Simulator Instructor, having taught skiing, tennis, coached Volleyball, Track and Field. He lives in Salt Lake City, Utah.

## *Upcoming Events for 2007-2008*

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*Ascension Bay Bonefish Club, Mexico*      *CI Workshops*      *December 3 & 10, 2007*  
*Dusty Sprague & Dan Wright (CBOGs)*      *MCI Workshops*      *December 4-5 & 11-12, 2007*  
*Contact them at: [dsprague01@comcast.net](mailto:dsprague01@comcast.net) or [dan@flycastingacademy.com](mailto:dan@flycastingacademy.com)*

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Bellevue, WA Don Simonson	The Fly Fishing Show 2/2 - CI	Feb 2-3, 2008 2/3 - MCI
Denver, CO Dan Wright	AFFTA Fly Fishing Expo CI, MCI	Jan 4-6, 2008
Marlborough, MA Rod McGarry	The Fly Fishing Show 1/18 - CI	Jan 18 - 19, 2008 1/18 - MCI
Denver, CO Jeff Wagner	Denver ISE Show CI, MCI	Jan 24 - 27, 2008
Somerset, NJ Jim Valle	The Fly Fishing Show CI, MCI	Jan 26 - 27, 2008
Chicago, IL John Breslin	Great Waters Expo CI	Feb 9-10, 2008
Trevisio Raffaele Mascaro/Mauro	ITALY CI, MCI, THCI	Feb 22 - 24, 2008 Int'l Test Payment
Mtn Home, AR Chuck Easterling	Sowbug Round Up 3/15 - CI	Mar 13 - 15, 2008
Sandy, UT Jeff Wagner	Salt Lake City ,ISE Show	Mar 13 - 16, 2008
Minneapolis, MN John Breslin	Great Waters Expo CI	Mar 15- 16, 2008
Lakeland, FL Dusty Sprague	Nat'l Fly Fishing Expo 3/28 -CI	Mar 28 - 30, 2008 3/30 - MCI
Pertenstein Lasse Karlsson	GERMANY CI, MCI	April 19 - 20, 2008 Int'l Test Payment
Tokyo/Kanagawa Bill Higashi	JAPAN Sign Up Not Available Yet	April of 2008

# CONGRATULATIONS

## *New Casting Instructors*

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Ian Cole	- New Zealand
Steve Carey	- New Zealand
Gordon Baker	- New Zealand
Mark Rodgers	- New Zealand
Gordon Low	- Australia
Greg Jackson	- Australia
Jonathan Burgess	- Australia
Carl Bernard	- Australia
Chris Adams	- Australia
Tony Loader	- Australia
Brian Henderson	- Australia
Murray Ogilvie	- Australia
Craig Daly	- Australia
Rory Graham	- Australia
Peter Morse	- Australia
Ronan Creane	- Ireland
Philip Maher	- Ireland
Mike Shanks	- Ireland
Paul Therrien	- Ireland

Joseph Stitt	- UK
Ben Dixon	- UK
Hiroshi Yazaki	- Japan
Amin Bin Rahmat	- Singapore
Rolf Hamacher	- Germany
Christine Strixner	- Germany
Christian Strixner	- Germany
Elie Beerten	- Belgium
John Grootjans	- Netherlands
Ernst Grootjans	- Netherlands

Chris Arbulich	- CA
Daniel Pangaldi	- NJ
Dan Jackson	- AB Canada
Michael Linihan	- NV

## *New Casting Instructors (continued)*

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Don Gibbs	- CO
Charles Cutshall	- PA
Mark Stevens	- FL
Berndt Wixom	- MI
Edward Jacoby	- NJ
Jim Harpole	- GA
Charles Shaw	- IL
C Scott Whitman	- OK
Stephen Nance	- KS
Bob Hansell	- GA
Don Pendleton	- IL
Kim Smith	- IN
Eric Wonhof	- NV
Nick Strelchuk	- NV
Scott Kessler	- WI
Ed Phelan	- CA
Lew Ramsdell	- IL

## *New Master Instructors*

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Stu Tripney	- New Zealand
Carl McNeil	- New Zealand
Peter Hayes	- Australia
Martin Kjeldgaard	- Denmark
William Van der Vorst	- Netherlands
Henrik Haupt	- Denmark
Clive Mitchelhill	- UK
Randy (Lee) Davison	- ID
Chase Jablonski	- WA
Carl Zarelli	- WA
David Olson	- FL
Travis Burt	- TN

## *New THCI Instructors*

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Dan Wright	CO
Denise Maxwell	B.C., Canada
Dennis Grant	Nova Scotia, Canada
Larry Aiuppy	MT