

The Loop

*The Federation of Fly Fishers Journal for Certified Casting Instructors
Spring 2001*

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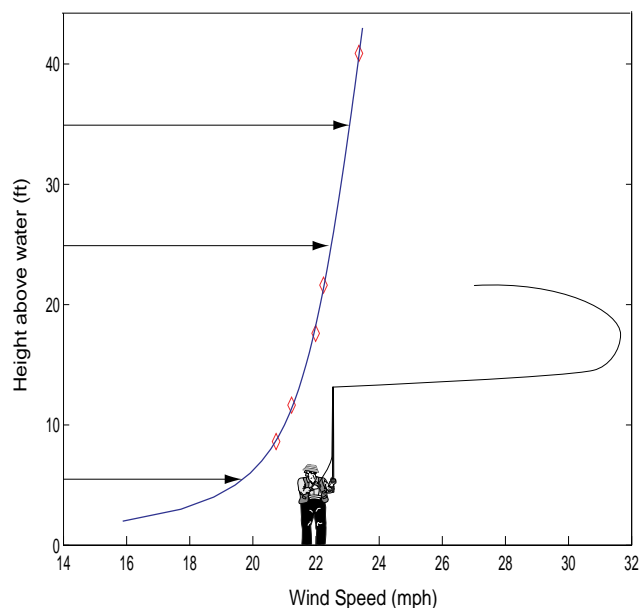
UNDER THE WIND

by Larry Pratt

In order to help students deal with a head wind we often advise them to cast 'underneath' it, either by using a side arm motion or by tilting the trajectory to make a high-to-low forward cast. These tricks are based on our vague belief that wind speed diminishes near the ground. But how much does the wind actually decrease and where does this decrease occur?

Although direct measurements of wind profiles over land are quite common, profiles measured over water are quite rare. Luckily, my colleague Dr. Jim Edson at the Woods Hole Oceanographic Institution has made the type of measurements we are looking for. The figure shows a typical example of a mean wind profile measured over the Pacific Ocean. The shape of this profile is typical over open water or on a bonefish flat, but not necessarily over rough terrain. The figure also shows a 6-foot person who is using a 9-foot rod to cast into the wind. Unfortunately, the caster's loop is quite open, probably because he has not been heeding the advice of his local FFF Certified Instructor. The result is that his fly is more than 20 feet above the water surface.

This wind profile was taken on a moderately windy day.



The average speed at the eye level of the caster is just over 20 mph. Significantly, the speed at the level of the fly is not much greater: about 22 mph. Throwing a tighter loop (and maintaining an upright casting posture) will lower the path of the fly and will diminish wind resistance. It will not, however, significantly alter the wind speed at the fly level. To do that the caster could use a side-arm motion, putting the loop in a horizontal plane perhaps 4 feet off of the ground. The wind speed at this elevation is more like 18 mph, giving some advantage but not a lot.

I earlier criticized the caster for have such an open loop. However, an open loop on the backcast actually leads to a slight assist from the wind in straightening the backcast. The loop extends over an elevation of about 15-22 feet and the average wind speed over this range is greater than it is over the 15-17 feet that would be sampled by a tight loop. Of course, the forward cast is an entirely different matter. The loop needs to be tight to penetrate the wind.

You may have heard it said that the wind speed actually decreases to zero at ground level. This was a matter of great debate among fluid dynamicists during the early part of the 20th century. Eventually it was shown through visualization of microscopic parcels of air that the wind speed does indeed decrease to zero at the solid ground. Over the ocean, the wind speed decreases to whatever the speed of the water is at the surface.

For the conditions under which the figure was made, this surface speed is very small (< 2 mph). As the figure suggests, most of the decrease in the wind actually occurs in a very thin layer right next to the ground. For example, note that the wind speed at the level of our caster's knees is still about 15 mph.

Why is it that tilting the trajectory of a forward cast (such that the cast begins high and finishes low) yields some dividends? By finishing low, the wind-vulnerable leader and fly can turn over within a few feet of the ground where the wind speed is significantly lower than it is aloft. Other than the distance added by a complete turnover and straightening of the leader, it is hard to see, however, why this trick should give any additional advantage.

The conclusion? Although tricks such as opening the

loop on the back cast, tilting the cast trajectory, or using a side-arm motion offer some advantages, the most important 'trick' in penetrating the wind is a tight loop. Tight loops, everyone!

Dr. Larry Pratt is a Certified Casting Instructor and an oceanographer at the Woods Hole Oceanographic Institution. He also teaches fluid dynamics at M.I.T. (Illustration by Jack Cook, Jim Edson, and Larry Pratt)

PRACTICING TO SPOKEN COMMANDS

By Gary Borger

Developing the necessary cadence for a smooth, up-to-speed casting stroke is difficult for most beginners because the casting motions are so foreign to most of them. What's needed is a way to re-enforce the correct timing, both while under the tutelage of the instructor and during independent casting practice. Jason and I have discovered a remarkably simple, yet highly functional, approach that every student has been able to use the very first time it was described to them. It's nothing more than naming the parts of the stroke out loud while simultaneously performing the parts of the stroke (yes, you speak the parts and do them, both in the same order).

For the casting stroke, one might have the students say, "Backcast, Pause, Forward cast," or for the alphabetically challenged, "One, Two, Three." The cadence of the spoken words should match the actual timing of the cast, that's why I prefer to say the parts of the cast rather than say numbers. By speaking the words clearly and at normal conversational speed, the words and timing align perfectly.

In our schools, seminars, and demonstrations, we have the students perform the casting stroke in synchrony with us, going very slowly at first and gradually speeding up until everyone is comfortable with the needed speed. If the students are using "live ammo," that is, rod and reel and line, then we tell them to simply allow the line to fall to the ground behind themselves after the backcast, until we get the tempo up to speed. We have the students face us and follow us exactly. If anyone is not getting the motion correctly, then we make certain that this movement is corrected before going to the next step in the stroke.

For example, we might say "Backcast," and all the students make the backcast, allowing the line to fall behind. As we watch, we note that two of the students allowed the rod to fall too far back. Before going on, we say "X and Y, please look at your rods." "You need to correct the stop on the backcast." When everyone has their rods correctly positioned, then we would say, "Now this is the time when you would pause and allow the line to straighten in the air behind you." "OK, now forward cast." We would then make any needed corrections again. We repeat this process, going a bit faster each time until all have the timing correct or we need to stop and approach the casting more slowly.

When everyone is up to speed, we instruct them to say the parts of the cast out loud as they cast. We then circulate among them and fine tune as necessary. We also point out that

we want them to say the words out loud as they practice, but not when they're fishing.

Gary Borger serves on the Executive Committee of the Board of Governors.

HAULING: START THEM EARLY

By Jack Sherrill

It has been my experience that the earlier I can familiarize beginning students with hauling, the quicker they understand the principles of casting physics. I like them to start hauling at the second or third lesson, provided they have developed sufficient muscle memory that they do not have to think about each casting stroke.

I once was working with a new student who was quite proficient at the casting stroke on a horizontal plane. But when I added a haul on the forward cast, simultaneous with the power stroke, he could not get the sequence correct. Sometimes he placed the haul before the power stroke and sometimes after; occasionally he pushed the fly line instead of pulling it. This student was a doctor who had solved many problems more difficult than a single haul. I simplified the matter for him by isolating the haul motion from the movement of his casting arm.

Make the line-hand-action of the haul the only thing to think about.

I moved to the place where his back cast came to rest on the grass, picked up the line, and held it steady. Then I told him to put just enough tension on the line to bend the rod slightly, and to hold the rod in that position. Then I told him to pull the line with his line hand each time I said haul, perhaps twenty five times. This was just a short pull quickly followed by a release. This caused the rod to return to the slightly loaded position of the start. When I asked him what the rod did when he pulled the line he observed that the rod assumed an additional bend. I explained that the haul was further loading the rod while at the same time accelerating the line in the direction of the cast. This additional line speed and rod load would result in longer, more accurate casts with less effort. I then reminded him that when fishing he would have to load the rod against the inertia of the line in the air and that it would have to be done quickly before the opportunity was lost.

Find what is confusing and develop muscle memory to correct it.

By isolating the motion of the hauling hand from the rod hand, working on them separately and then putting them back together, all he had to master was the exact moment to make the haul. This was much easier than making all the decisions at once on the spur of the second. He never again pushed the line instead of pulling it, and finished the lesson with the conviction that he would be able to do it again during his practice sessions. Now that he understands the principles of hauling on the presentation cast I am sure that it will be easy to teach him to haul on the back cast as well.

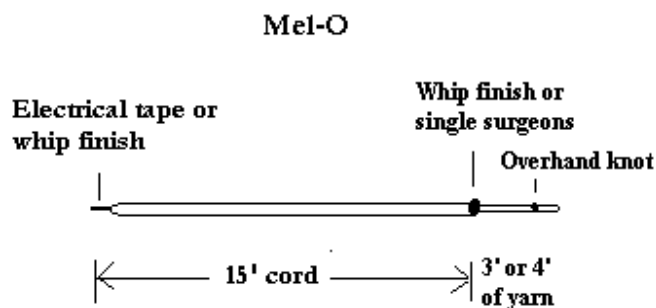
Jack Sherrill serves on the Board of Governors, formerly as Chairman. He resides in Grand Junction, Colorado.

THE MEL-O AND THE INDOOR SHOOTING HEAD

By Macauley Lord

Casting instructors everywhere should be aware of some of the innovative teaching props developed by veteran casting instructors. Tops on my list are the Mel-O and the indoor shooting head, both developed by Mel Krieger.

The **Mel-O** [Mel does not endorse this appellation] is an adaptation of Joan Wulff's Fly-O, but uses a piece of macramé cord in place of the yarn. A rod tip-section strung with macramé cord acts more like a conventional fly rod than one strung with yarn. The cord, being much denser than yarn, behaves surprisingly like a true fly line. It loads the rod better and enables things like true tailing loops and realistic aerial mends. It also hand-casts remarkably well.

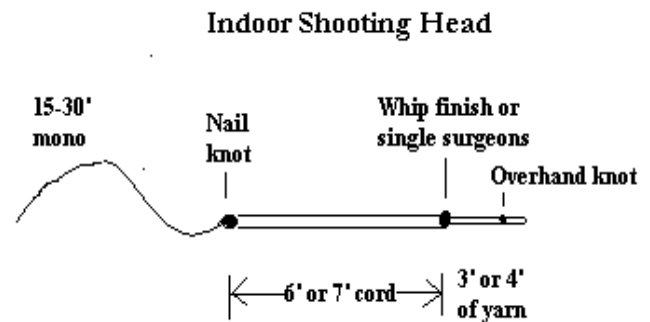


To make your Mel-O, use braided--not twisted--polypropylene macramé cord as the fly line. You can use 6mm Maxi-Cord or 6 or 8mm Bonnie Braid. Maxi-Cord is available from www.alpineimport.com or by calling AlpineImport at (800) 654-6114. Bonnie Braid is available from www.MacrameSuperstore.com or by calling the manufacturer directly at (877) 343-8115. Regardless of which brand you use, you'll pay around \$7.00 for a lifetime supply.

You might find it easiest to start with the 6mm cord, as the 8mm can be hard to string through the small snake guides of the lighter tips and it might overload some 6-weights. Mel takes a 15-foot length of cord and wraps one end as tightly as possible with 1/2-inch electrical tape to keep it from fraying. Too, this enables it to be strung through snake guides. Bob Jacklin whip finishes the end of his to make it even easier to thread. In any event, once you thread the cord through your guides, you should have about 11 feet or less of cord beyond the tip-top. For faster action use an 8-weight tip; for slower action use a 6-weight.

The leader, an important part of the Mel-O, is made by attaching a four-foot length of Fly-O replacement yarn to the end of the macramé cord using a single surgeon's knot or a whip finish. You should end up with about a 3 or 4-foot leader. Tie a single overhand knot about 3-4 inches above the end of the yarn to slow its inevitable fraying. It will need to be replaced eventually but the macramé cord will never wear out. You can purchase the yarn for the leader from Royal Wulff Products at (800) 328-3638.

The **indoor shooting head** is ingenious. When I loaned this innovative learning toy to the crew I teach with, I couldn't get it back! It is just what you think--a true shooting head that can be cast indoors with a 6 or 7-weight tip section. In fact, this thing is so much fun to cast, it could cut into your fishing time. (Is anyone out there in the flyfishing business listening? There might be a market for a prop that lets people learn to double haul in their living rooms while watching old Godzilla movies on cable.)



Mel makes the head from a 6 to 7-foot length of parachute cord weighing about 160 grains. He laboriously weighed and cast 10 different types of parachute cord to find the one he liked best--many were too limp or too stiff. You may order 20-foot lengths directly from the FFF National Office in Bozeman for \$5.00 each to cover shipping and handling. [If you want your own 1000-yard spool--enough for up to 500 shooting heads--call Sunset Line and Twine in Petaluma, California, at (707) 762-2704 and specify Parachute Cord Style #1593, Camo Green, manufactured by Hope Webbing Co.]

Once again, the leader is crucial. As you did with the Mel-O, tie 4 feet of Fly-O yarn to the parachute cord with a single surgeon's knot or whip finish and then knot the tip of the leader 3-4 inches above the end to slow the fraying. The head plus the leader should not exceed 10 feet. To connect the running line to the head, use a nail knot. The running line should be anywhere from 15 to 30 feet long. I tape mine to the ferrule to keep it from zinging off into space when I boom out a monster 30-foot cast. Yeehaw!!

For the running line, Mel recommends either 20-pound Amnesia, 25-pound Golden Stren or 35-pound Rio Slickshooter. I've used both Amnesia and Slickshooter and been happy with both. Even if you don't like to tinker with shooting heads, this tool is a **MUST-HAVE**. When word gets around that you have one at your disposal, you'll have to unlist your phone number just to maintain your privacy.

If you have designed or are aware of an innovative tool for casting instruction, please submit a description to Evelyn Taylor at the FFF National Office. We'll try to include it in future issues of *The Loop*.

The author thanks Mel Krieger for his help with this article.

YOUR FAVORITE TEACHING TIPS

Most of the following tips were gleaned from the 2000 Casting Instructor Certification Renewal Questionnaire. The Loop thanks all of you for your submissions and for sharing your ideas with the rest of us. That's how we get better. --Ed.

When a student is not accelerating to a stop but waving the rod instead, try changing the whole game. Have the student hold the rod with palm up, parallel to the ground and straight out from his belly button with about eight feet of line out. Have him try to **hit the tip of the rod with the line** with a smooth stroke. In order to accomplish this, the rod must accelerate to a stop. The line will come closer to the tip as the stroke gets better. Basically the student is doing a very short, sidearm tip cast. When the student tilts the forearm up to approximately 45 degrees or more, he now has a more normal fishing cast. You may wish to have him lengthen his line a little at a time as the stroke improves. If the loop falls apart, go back to a shorter line and the side cast. The short line and side cast allow the student to easily see what the line is doing in relation to what the hand and arm are doing. *Jerry Clark, Missouri*

I suggest that people **practice the casting stroke while driving**, using a piece of hose, or a pencil, or pen. This develops muscle memory and confuses the hell out of others on the road. *Britt Phillips, California*

To simply teach the pull-and-give motion of the double haul, I use a **large rubber band** with each student pulling with their line hand and giving back to the rod hand. This quickly teaches the motion and timing. *Wanda Taylor, Tennessee*

To help a student who is too wristy, **I tuck the butt of the rod into his shirtsleeve** or jacket. Sometimes I'll even wrap a bandana around the butt and his wrist. *Mark Harbaugh, Idaho*

Many people snap or thrust the rod too quickly at the beginning of each stroke. To help smooth out the start of the stroke, I get my students to imagine driving a van with people sitting in it. If you are at a traffic light, you don't want to start by slamming on the gas and giving every one in the car **whiplash!** Instead, you want to start slowly. *Capt. Dave Chouinard, New Jersey*

I cut and form **colored-wire coat hangers** into different loop shapes (wide, narrow, tailing) as a portable/indoor, tangible way of explaining loops. *Peter Caverhill, British Columbia*

I try to find the best place on the student's line for him to hold it--the "sweet spot"--and mark it with a **Sharpie pen**. He can then find that spot every time to better practice overhead cast and false cast. *Skip Quade, Idaho*

Do six curls each evening with a 12-ounce weight to keep your casting arm in shape. You could use **beer, soda or Slimfast**. Glass bottles are better than cans for their extra weight. *Victor Babbitt, California*

Casting with only the tip section and a short line and stroke, I show students how well we can cast with the tip alone. I then put the rod back together and complete the cast using the full rod and longer line. I point out that as we lengthen the line, we increase the stroke length, power and load of the rod. *Mike Perusse, Washington*

I don't have any real favorites. I consider myself the **Milton Berle** of casting instruction--I use whatever technique I've learned from others that seem to best help an individual student. *Chuck Newmyer, California*

Tailing loops often result after the caster **creeps** the rod forward as he waits for the line to extend on the back cast. It's common in Type-A personalities or when a big fish shows up. To teach patience, find a vertical object on the horizon. Line the caster up so he views a good rod stop position as slightly behind the object. During the pause, have him watch the rod and count "1, 2," as it remains motionless behind the object. Then start forward past the object. Adjust the count to suit the casting distance and tempo. *John Kluesing, Michigan*

I teach folks to properly accelerate to a positive stop on both back and forward casts by having them cast 6 to 10 feet of line and a 7 1/2-foot leader with just their **casting hand---no rod**. If the hand moves through a straight line with positive stops on the back and forward strokes, a loop is formed even without a rod. *Jeffrey Wilkens, North Carolina*

I get the student to **keep the elbow in**, which helps keep the arm and rod moving in the same plane. This reduces strain on the shoulder and increases endurance through a full day of casting and fishing. *Mac Huff, Oregon*

I have the students **backcast horizontally, watch the loop**, and allow the line to settle to the ground after each stroke. They then make a forward cast, again watching the loop form and allowing the line to settle to the ground. This process requires the student to focus on stopping the rod and forming a good loop with every stroke. *Chuck Easterling, Arkansas*

The two most important words to remember are "stop" and "stop". *Bob Jacklin, Montana*



THE LOOP LIBRARY

Fly casting instructors need a good reference library. This section of *The Loop* features snippets of casting knowledge from books and articles by masters of the art.

The Squat Cast

This is a neat little trick for throwing the Basic Overhead Cast very low over the surface of the water. I developed it for places where brush to the rear makes it impossible to throw a low traveling, horizontal back cast. Make a high back cast, and as the line is extending, squat down. Aim the forward cast low over the surface. With this trick, you can throw a Basic forward cast only inches above the water. It's allowed me to slip a cast back under brush, into culverts, and under overhanging banks where other casts just wouldn't work.

From *Presentation*, by Gary A. Berger, Tomorrow River Press, 1995. Reprinted by permission.



From the Editor

Computer simulated fly casting and a device to analyze the casting stroke.

Wouldn't you love to see a device that would truly analyze your casting stroke, and a computer program that could help you become a better caster? Well, University of Michigan engineering professor Noel Perkins and graduate student Caroline Gatti have developed a computer program that effectively simulates fly casting. This program shows simulations of casts and how varying line and casting parameters affect the cast. It has the potential to be very helpful to rod and line designers, as well as students of casting.

Working in conjunction with Board of Governors member and fly line developer Bruce Richards, Noel has also found a way to use a small measuring device to accurately plot the motion of the fly rod during casting. This shows, in extraordinary detail, the exact rod motions that result in good and bad fly casts. As an analytical tool for studying the casting stroke, this device is unparalleled. It pinpoints casting errors that are difficult to discern visually and allows detailed analysis of each part of any cast. This device has amazing potential to help instructors analyze and correct any casting stroke.

Bruce and Noel will roll out this ground-breaking technology for casters at the annual FFF Show in August (see calendar). Don't miss it!

Casting games issue upcoming.

I promised to publish your favorite casting games in this issue. Well, Evelyn Taylor and I have received such a wealth of neat games to pass on to you that we need a whole issue to do so. Next issue, I promise. Thanks for all the great submissions so far.



ONLINE CHAT GROUP FOR CASTING INSTRUCTORS

Guy Manning, Certified Master Instructor, has started a new Internet service exclusively for Certified Casting Instructors. Initiated on Mar 18, 2001, the site is located at <http://groups.yahoo.com/group/FFFCCI>. The site operates like a list server and can also be accessed through the World Wide Web. Part and parcel of the Web site is the ability to "chat" within the group and post files to share with others.

The official name is FFFCCI (Federation of Fly Fishers Certified Casting Instructors) and is a "Yahoo! Group". The goal of the site is to increase communication among FFF Certified Instructors across the country, giving them the opportunity to freely share techniques, experience and stories.

There are two ways to participate in the group. You can sign up at the website listed in the first paragraph or send an email from the account you wish to receive your messages at, to: FFFCCI@yahoo.com. Your email address will reach the group moderator who will add an account for you. Guy is moderating the group. If you have questions or concerns, you may contact him at grhen@ix.netcom.com.



THE LOOP STAFF

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Fly illustrations by Jason Berger

YOU CAN HAVE A LINK from your FFF Website listing to your own E-mail address. Contact Evelyn (see above).

We welcome your submissions via E-mail, fax, or disk. Please attach a short instructor bio (1-3 sentences), including your location and Certification level. Please indicate whether or not you are willing to allow for your submission's possible republication on the Program's Website. Any illustrations should be in TIFF format. The Loop reserves the right to accept or decline any submission for any reason, and to edit any submission as it sees fit. All submissions should be sent to the National Office:

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Web: <http://www.fedflyfishers.org/castingcert.shtml>

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

COMING EVENTS

Pre-registration is REQUIRED!

Contact Evelyn Taylor at (406) 585-7592

Gulf Shores, Alabama - May 20; Southeast Council Conclave; Certified Instructor; must preregister by May 11

Redding, Calif - May 20; Instructor workshop with Mel Krieger; option to take the certification afterwards; contact Rachel (530) 222-3555 or rachel@theflyshop.com

Loveland, Colorado - June 5; Instructor workshop with Mel Krieger; option to take the certification afterwards; contact Bill Peisner 9800) 373-5360 or (970) 377-9640

Roscommon, Michigan - June 16; GLC Fly Fishing School; Cert Inst. with John Van Dalen; must preregister by June 8

Livingston, Montana - June 23; Certified Instructor with Rod Walinchus; must preregister by June 15

Livingston, Montana - August 8 Masters; August 9 Cert. Inst; Internat'l Fly Fishing Show; must preregister by July 31

Livingston, Montana - August 10; Computer Simulated Fly Casting and a Device to Analyze the Casting Stroke; presented by Bruce Richards & Noel Perkins; 3:00

Livingston, Montana - August 11; Cast-Around with Macauley Lord and other members of the Board of Governors; 2-4:00; all casting instructors welcome

Redding, Calif - Sept 18; Instructor workshop with Mel Krieger; option to take the certification afterwards; contact Rachel (530) 222-3555 or rachel@theflyshop.com

Freeport, Maine - October 20-21; LLBean 2-day workshop & certification with Macauley Lord; contact Craig Uecker to preregister at 800-341-4341 x22666

New Master Instructors

Van Blauvelt - *Maine*

Guy Manning - *California*

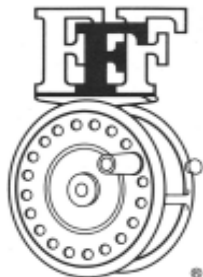
Jamie Murphy - *California*

Eddie Robinson - *Utah*

Eric Sherar - *California*

Marilyn Vitale - *Washington*

Elizabeth Watson - *Washington*



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