

On the Firing Line (Twenty-ninth in a series)

Deliver the Shot

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**Hold is nothing,
Without execution.**

“I have lots of athletes on my teams that have awesome holds and who can't execute the shot!” The speaker was not a local club coach talking about developing athletes. This was a National Team coach in October, 2005 talking about several of the junior and adult members of the National Teams. Of course, these athletes do execute the shot. What the coach meant is that too often the shot executions are tentative and therefore often fatally flawed.

Certainly a steady hold is a critical component of any good shot release. The hold must be steady enough that the athlete trusts that there is sufficient steadiness to allow a good result. It is this concept of “trust” that provides the critical element in the actual shot delivery. We will discuss hold because it is a major foundation of shot delivery, then we will explore the actual delivery itself.

Hold

Developing a world class hold, while seemingly a mysterious and slow process to many coaches and athletes, should be straightforward and fairly rapid. There are a number of essential elements.

Physical Position – Many books and articles are available to teach us the proper techniques for building our position. All sorts of rules, principles, and hints are available. Coaches and fellow athletes are a wealth of information and experience. Despite all of these resources, we so often overlook or do not fully utilize the three most critical and fundamental elements of all: bone, bone, bone!

Muscle not only fatigues, it vibrates. Even when holding a smallbore rifle or heavy pistol in the standing position, or a fully drawn bow, the very best athletes are using a surprisingly small number of muscles and have very low levels of contraction in the few muscles that are being used. Examine your position, stop shooting for score, and really notice where you have muscle tension and why. Often, opportunities for improvement are to be found.

Balance – We seem to be at the mercy of our balance each time we shoot. Either our balance is “good” today or it isn't. Notice that balance actually isn't random. Notice that we are “falling” one direction (usually forward) and “correcting” the opposite way. By making very subtle adjustments to the positions of our feet, usually just in where they are pointed, we can in essence “tune” our balance until it almost appears that we aren't swaying at all. This may vary from day to day, but we have the power to tune it to be the best it can be each day. Athletes who have worked on this for a long time notice that the technique actually works better over time. Balance training improves this to the point that many athletes appear to stand essentially motionless at the critical moments.

Relaxation & Natural Aim – If our natural aim area is not truly aligned with our desired aim area (the target), the hold will open up considerably due to the slightly increased muscle tension introduced to push over to the desired aim area instead of allowing natural aim to take place. We must think of natural aim as “Where does it want to point?” Normally, we want to

impose our will and have the aiming point where we want it to point. Actually, you do not care where you want it to point – you just think you do! Instead, you care about where it wants to point. (Often called the Natural Point of Aim) If we discover where it wants to point, and then adjust our position properly, we eventually align where it wants to point with where we want it to point. Now we can accomplish something!

While adjusting the natural aim, we must not undo the careful balance tuning that we just performed, even though some of the adjustment techniques involve changing the position of the feet slightly. Therefore, it is imperative that the athlete optimize both balance and natural aim. Awkward and seemingly difficult at first, this becomes second nature in time.

Approach – One must approach the area of aim exactly the same way each time. One cannot approach the aiming mark from one side, then the other, then from below, then from high and to the left, and so on, from one shot to the next. Instead, always, always approach the aiming area from the same direction and in the same manner. This technique doesn't get as much discussion as many other topics, yet is very powerful.

If your position is solid, if your balance is well tuned, if your natural aim is truly aligned with the center of the target, and if you approach the target consistently, you will discover that your hold will become essentially motionless within the first few moments of arriving on the aiming area, and that it will remain that way long enough to calmly and cleanly deliver a shot. There are coaches, athletes, and even National Team members who protest that the hold is never essentially motionless. They are invited to explore these techniques in more depth – and to discuss them with athletes, even as young as age 13, who experience this phenomenon on a regular and frequent basis.

Quiet Mind – Brain waves open up the hold. Yes, merely thinking opens up the hold! That voice chattering away inside has an even worse effect. This is only one of many reasons why it is important to learn to let distracting thoughts run out, or take control and quiet them, before starting to aim. Additionally, if you are thinking, or “checking things” before you give yourself permission to shoot, you are not in a proper mindset and are causing your hold to open up.

Quiet Eye – How we use our eye while aiming also has a significant effect on hold. Looking around, from sight to target and back, looking at different parts of the sight, and so forth, all cause movement in the hold. Instead, allow your eye to “quietly”, or steadily, rest on one spot. One tiny little spot and not move the eye at all. Everything you need to see will come to you.

Delivery

Sight Picture – The sight picture itself has a profound effect on our ability to execute the shot. In rifle shooting, there is a virtual epidemic of front apertures that are too small. If a front aperture is only 0.1 mm (yes, only 1/10th of a millimeter!) too small from optimal, it has devastating effects on the athlete's ability to execute in almost all cases. Interestingly, the aperture may be as much as 0.5mm or 1.0mm larger than optimal (or even more) with great effect. A number of elite athletes actually use quite large apertures. Although this runs counter to “conventional wisdom”, it has been borne out by controlled tests and numerous field tests with athletes at all levels.

Do not move your eye around the white ring to check it nor must the eye be used to bounce around from place to place on the white ring to check it. This violates the critical

principle of quiet eye, opens the hold, reduces confidence, promotes hold as a verb, and often destroys quiet mind.

In pistol, many athletes would be well advised to not use the “six o’clock” or “thin line of white” hold. The precise nature of the tiny hold “area” promotes hold as a verb, and again destroys quiet mind and quiet eye. Instead a center hold or a deep in the white hold – with the eye quietly resting on the middle of the front sight (not the top edge or anywhere else) – has amazing results. Note that the deep white hold is never intended to be “measured” by making the width of the white between the bull and the front sight equal to the width of the gaps on either side of the front sight, as is often taught. Doing so promotes eye movement and “checking”, which have already been discussed.

Having said all this, it is important to note that the six or thin line holds are used by many very successful pistol athletes, even at the highest levels. Many beginning, advanced, and recreational pistol athletes would be better served by the other aiming methods.

Hold as a Noun – Often the concept of “hold” is thought to be a verb, meaning something we do. “I have to hold it still!” This results in a very erratic hold and wastes lots of physical and psychological energy. Instead, think of “Hold” as a noun, meaning something that is. Our hold exists as a result of our physical foundation. The hold becomes amazingly steady, but only on the natural aim area. Nowhere else! The majority of athletes do not give natural aim enough attention, and are constantly “pushing” toward the desired aim area and away from the natural aim. The hold opens, and then the athlete will “try” to hold still. Relax, and enjoy the steadiness as discussed above in the natural aim paragraph.

Release – Many athletes release their shot “on command” by deciding exactly when they want it released. This is often due to not having a good hold and trying to catch the ten ring as it goes by. We call these “drive by” tens and they aren’t very reliable. To be sure, many elite athletes use shot release that is actively controlled with excellent results because their hold is quite solid. This style of technique requires much more training, is somewhat less reliable, and more prone to breakdown in the highest levels of competition. Therefore, while often used, and sometimes used quite well, the technique is not optimal.

Instead, having prepared the foundation using the program outlined in this article, the athlete has the confidence to preload the trigger by actually adding and maintaining some pressure to the trigger (yes, even to the 2nd stage on a 2 stage trigger) prior to arriving on the area of aim. Note that ultra-light triggers work against the athlete here. When “all the pieces of the puzzle” of this program are put in place, and that does mean every single piece as a unified whole, then the shots will soon almost seemingly release themselves. Often the athlete will be amazed by the difference in how they feel and in what is happening inside, and will also know the shot is very deep with no need to look in the scope. They also comment that they are the “easiest” shots they have ever fired.

Note that some coaches and athletes believe that this style of shot release is a huge mistake and to be avoided at all costs. Actual work in the field all around the world has shown the value of this technique.

To be sure, there are other techniques that are used to great effect. This technique is robust, repeatable, and holds up well under pressure. Very few techniques can stand the heat. Also, it has been found that this technique actually facilitates entering the flow state or so-called zone. Athletes have found themselves in the flow state – often for the first time – and discovered an entirely different plane of performance in as little as three days of carefully planned and structured training and in some cases in less than one day.

Athletes and coaches are encouraged to fully explore this program. Warning: merely picking and choosing elements of the program will rarely yield satisfactory results.

Focus Through – In baseball, golf, tennis, shotgun shooting, and many other sports, the concept of “follow through” is quite clear and understandable. In the context of rifle or pistol shooting, or archery, where the athlete is shooting at a stationary target, the concept seems less clear to many. Instead, think of the concept as “Focus Through.” As the shot is released, continue to maintain physical position, balance, natural aim, quiet mind, quiet eye, and just observe. In effect, pretend the shot has not been released. In rifle and pistol shooting, keep the trigger finger back instead of allowing it to come forward after the release. In archery, make no movement, even of the release hand.

Final Thoughts

This article is merely an outline that barely scratches the surface of the topic or even of the specific program presented. To do so will take several long chapters in a book. Hopefully the reader will glean some insights into a world of effortless ultimate level performance. Think about these techniques in the context of many of the previous articles, which have dealt with the athlete’s mindset. Those components are even more critical than having a good hold or preloading the trigger! All are required – else the puzzle is incomplete and the results are mediocre. Enjoy your journey of self discovery!

The “On The Firing Line” series is published by the national governing bodies for Olympic shooting in Japan and the USA, and has been adapted for archery as “On the Shooting Line” published by USA Archery. Olympic Coach Magazine, the National Association of Soccer Coaches, and others have referenced selected articles. The entire series is available online at www.pilkguns.com.

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(Biographical information as of October 2009)