## On the Firing Line (Third in a series) Back to Basics

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"Yeah, it's so easy. Just pull the trigger!"

We both laughed a bit at her sarcasm but her frustration was obvious. She had put the rifle down three times in a row after very long holds, without being able to break the shot.

"You are trying to make it a perfect shot, aren't you?" I asked.

"Yes, I am," she admitted.

Is this a conversation with a beginner? Hardly! This was an Olympian and competitor used to making finals and winning medals at world cups, but her recent average of 390 in air rifle hadn't been nearly up to her expectations or past performances.

Using a video camera and a Noptel electronic trainer, we could show her the long holds and let her see how good the shots would have been if she were more confident and decisive. Instead, she wasted really good holds and ended up forcing shot delivery. On a number of shots, we could see a 10 – "take it anytime you want" – but then it would degrade or the trigger would be jerked, and either way, there was a 9! Her follow-through wasn't world class either, but the long holds were the biggest issue.

The next day, she fired a 397 in competition. When asked what the difference was, she said it was because of what she had learned the day before. She said she was much more confident, trusted her hold, and allowed the shots to go smoothly after holding for a shorter length of time.

When we first start shooting, we don't pay much attention to the process. We just shoot, have fun, and improve. Then we start to do better. We press for higher scores and start to think about things. "I need to really concentrate on each shot and make it perfect!"

Well, not exactly. Trying for absolute perfection is the kiss of death to ultimate performance.

In some respects, the basics never change: stable position mechanics, inner feel, breath control, visual skills, sight alignment, aim, smooth trigger release, and follow-through. It's very simple actually, but as we improve, we often tend to complicate it. We start a vicious circle of reduced confidence, longer holds, forced shots, and it doesn't get better. An optimum shot delivery performance must begin and end within a certain and fairly short amount of time. Long holds generally cause a number of additional problems. Why is this?

As we prepare to deliver a shot, we start a sequence of actions that must take place correctly and consistently in order to achieve the desired results. Many of the functions involve the use of the human body. We are asking it to assume a position that is somewhat unnatural and uncomfortable, holding a heavy object, making the body and the object very steady and still, using our eyes to evaluate a very precise picture, and then gently moving one finger in a very smooth fashion without upsetting everything else. This burns a lot of oxygen. As the oxygen levels deplete, a part of the brain starts noticing that it is time to breathe. If the athlete holds the breath too long, a sense of urgency sets in, resulting in poor trigger control and little or no follow-through.

During long holds, each steady state becomes shorter and less still as the muscles tire, and the hold deteriorates. Eyesight weakens as the chemicals in the retina become depleted, so that the image sent to the brain for processing may not exactly match reality. The target may blur and the eye may actually hurt from the strain and dropping oxygen levels. The athlete doesn't

want to put the gun down (thus having to "start over") and forces the shot, sometimes with great results, but more often not. Worse still, getting away with some forced shots tricks us into thinking we can do it all the time. Then the bad shots erode our confidence and we wonder what happened.

What's really going on is that we don't trust ourselves. Oh sure, shooting is fun, but we want to do better and that means we have to consciously control and manage the shot process. We believe that to do better we must pay attention, use our eyes, and control it with our conscious mind. Unfortunately, that is not entirely correct. Certainly, there are shooters who do use these techniques, long holds and all, but the ones who are the most successful – the ones at the very top of the game – rarely do. The conscious mind and the eyes simply cannot perform at the level that the subconscious mind and body can. Bring the gun up and allow it to shoot almost as though by itself as the aim steadies.

Your very first hold is the steadiest. Many shooters waste that hold because they aren't ready or don't trust it. So they wait a few seconds as the gun moves around a bit and then settles again. Then they still aren't ready, or they want to make it visually perfect, so they waste that hold as well. By now six to eight seconds have gone by, the muscles are getting slightly more jittery, the eyes are getting tired, oxygen levels are dropping, and the shooter continues to hold. Each steady state is shorter and looser, and the optimal time to shoot has passed.

Even if the athlete takes the shot earlier, the procedure is often to wait until the athlete sees a steady gun and perfect aim before starting to pull the trigger. But once you see the perfect shot it is *too late*. By the time you are able to react, the gun is already moving again.

In training, experiment with delivering the shot within eight seconds of arriving on target. Put the gun down even if the shot hasn't been delivered. Shoot all your shots in one bull so you can't score them. You can deliver really good shots within several seconds of finding your natural point of aim. Really work with this exercise. It might be rough at first, but be patient with yourself and the process. Eventually, your 30-second holds will seem like an eternity. Your eyes will stop hurting, the target will stop blurring, your problems with running out of time will go away, many trigger control problems will disappear, you won't tire as easily, and you'll have more fun!

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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)