

# Simple Diagnostics

By Bob Foth, National Paralympic Coach

Several great tools exist to help coaches and athletes diagnose shooting problems. The Scatt system and other similar products are fairly popular for those that can afford them, but may be too expensive for many. These tools provide a wealth of information in various formats and may also speed up analysis and problem solving. However, I think many coaches and athletes overlook the tools they have readily available.

I would advise coaches to pay attention to the right things at the right times. I often see coaches looking through a telescope waiting for a hole to appear in the target. While it will eventually be helpful to know where the shot hit, the timing is wrong to have the focus on the target. Instead, the coach should be watching the athlete—study how the position is set up, how the natural point of aim (NPA) is checked, how the gun is mounted or raised, where it settles, how consistent the pattern is, etc. You might create references on the shooter also. For example, you could put a piece of tape on the stock for hand placement or on the jacket of a standing shooter to see if the front elbow placement is consistent. If these items are not consistent, the athlete may have problems with his or her shot plan or process or use a position that is not easily replicated. It may also be useful to start counting the seconds to determine the moment the gun is mounted in order to help establish patterns in timing.

After the gun is in position, look for the athlete's breathing pattern. Is it the same for every shot in that position? Do the breaths appear to be deep relaxing belly breaths? Be sure to read Marcus Raab's "Breath Control" in the May/June 2011 issue for an in depth understanding of this critical process.

Depending on the questions you have about the athlete's performance, you might pick different vantage points for different things. For example, move to the side to get a clearer view of the trigger finger or the eyes or get behind the shooter to watch body sway or other large movements. I find that a digital camera can be a great tool to help the athlete see his/her own position and start to self-coach. Take shots from behind and both sides. If possible, stand on a stable chair and take photos from above the athlete to view the orientation of the position. Sometimes close-up pictures of a specific spot, like the contact patch between the butt-plate and

shoulder or the hand and the grip can help the athlete get a visual image to match what is felt.

One of my favorite strategies is to find a way to get really still and watch the front sight with a clear visual reference behind it. That reference might be a spot on the wall, or occasionally even a target. I often find a way to support my head so that I am sure I can pick out small movements of the gun. I'll rest my chin on my hands or lean my head against a wall; anything to be sure I am not moving much at all. Once you get good at this, I think you will be amazed at how much you can see, even without the fancy tools. Details like size, shape and timing of the hold start to become relatively obvious. You may be able to determine the "sweet spot" in the hold pattern, the time period when it seems most steady and usually when the best shots are produced. Keep watching

intently and details of the recoil and follow through will become apparent. Did the shot seem to break cleanly? Is the recoil large or small? Is it vertical or does it have a different shape. Does it seem to settle back in the same place? Does it stay constant over a long course of fire? AFTER watching all of this, then you can look through the scope or at the monitor to see where the shot hit.

Now start interacting with the shooter. What was the shot call? Does the athlete have an estimation of the scoring ring

and direction? Any other information about how that shot felt or what it looked like? Does the athlete's perception match yours? If not, work together to try to find out what was missed. Get the athlete to grade various specific aspects of the shot execution. This usually works best with just one or two specific topics. Help your athletes to become more self-aware and more analytical so they can coach themselves and become more self-reliant. They will have to do this on match day!

If you don't have a coach, find other ways to coach yourself. Use more than score to evaluate your performance. Focus on one thing at a time. Honestly call shots BEFORE looking at the scope or monitor. You can also find appropriate ways to use score as a tool to evaluate performance. Track things like center shots or maybe 9.5s and better. Analyze targets after the shooting session. Were you zeroed in consistently? Were there patterns or shapes to the groups? What else can you learn from them?

Try applying these tips to your athletes or your own shooting and get on a training path of improvement, not just practicing the status quo.

