
Shooting Tips
and
Articles by Matt
Burkett
866-GunDVDS
www.MattBurkett.com
www.BurkettVideo.com

Excerpts from the "Practical Shooting Manual"
All materials Copyright 2004

RECOIL CONTROL PROBLEMS

The concept of a continuous sight picture. Nearly everything you hear in training or at a match is see your front sight. I don't think that is the correct way to approach a major problem with peoples shooting. The main issue they have is that they don't see the sights when they need to, which is during the entire firing sequence and return to the targets. Most of my students would be familiar with the timing drills. One of the biggest benefits of a timing drill is that it would develop the ability to see the sight all the way through the recoil. That is how you shoot fast and accurate splits on target.

--

Understand that the GRIP of the pistol is different than getting a GRIP on a pistol. This is a difficulty in common language usage especially when describing both.

Recoil control or timing:

The Issue:

Most shooters have a significant issue with recoil control. Well okay they don't have any recoil control would be a better way to put it. We have worked on flinch. If you can see your sight lift and return, your most likely not flinching.

Poor recoil control covers a spectrum of problems. From not having a consistent return of the gun to the same spot you just shot to the hand or hands breaking and losing grip on the pistol. Generally I see either a hand readjustment right after a shot or I see the weak hand actually lose its grip on the pistol.

Now lets define the issue. The concept of recoil control or timing the gun (from the shooters perspective) is to subconsciously return the sights to the same spot. This is a neuromuscular firing of fast twitch muscles that occurs .04-.07 of a second after the shot is fired. Notice is said subconscious. You have to set everything up right for and then let it happen. The top shooters don't look like their working hard when their shooting do they? That's a big hint. Their not!

Common problems to address:

Does the gun fit your hand? Can you actually hold the pistol in a good firing grip and actuate all safeties along with get a proper finger position on the trigger? If the gun doesn't fit you, how do you think you will shoot it fast and accurate? You will be able to shoot it accurate regardless of grip, but, not fast. Accuracy is purely sight alignment and trigger control. Another issue that comes up when people are shooting a gun that doesn't fit is that they can't index the gun consistently. Fixes for improper gun fit include

modifications to the grip, trigger length, or maybe a different gun entirely. If your using a 1911 or Wide Body gun, SVI has an insert trigger system (ITS) that allows you to change the trigger length, style, and even color without taking your gun apart. <http://www.sviguns.com> Is it slippery? I once had a student that had a full custom .45 and his issue was that the gun was just plain slippery. There really was no way to get a good purchase on it, especially with hard ball loads. I know this sounds like common sense, but, you have to be able to “stick” to the gun. It didn’t help that he also liked to silicone his gun. THE WHOLE THING. Grip and all! That’s like greasing a ball bearing then trying to hold on it when it gets 150 g’s of force applied. Good luck! Skate board tape, checkering, different grips they will all contribute to a better grip. If your sweaty hands aren’t helping the issue any, get some Pro-grip from Krunch Products.

Do you have a crappy grip that doesn’t lend itself to holding the gun properly? Is there a gap between your hands? Is your weak hand thumb not pointing at the target? Is your weak hand actually getting on the grip itself or just kind of riding your strong hand? If you have seen Practical Shooting V 4, we mark the hands on Kevin to see if he is getting a consistent grip on the pistol. Have a training partner do the same for you. Then do 25 draws and see what happens.

The weak hand needs to be an integral part of the two handed grip. For me that is where most of the recoil control happens. Trigger control occurs with my strong hand. Most shooters try to do too much with their strong side of their body. This is a natural thing that we need to overcome for really fast shooting. Fast shooting doesn’t happen when the strong side is tensed up. This is when you will see shooters have trigger freezes, and horrible follow up shots. Sometimes it doesn’t even look like they were shooting at the same target! A drill to work on that will help you bring your weak side more into your shooting is when the hands hit the reception position (about where you clap), the weak hand “brings” the gun to the sight plane. This can help take the focus off the dominance of the strong side and help balance us out a bit. (Wouldn’t it be a better world all around if more people were well balanced? I am talking mentally here though. J

Pushing and pulling on the gun like the old style weaver technique. Alright, so this one never made sense to me. The gun is recoiling rearwards, why in the hell do you want to help it? Dynamic tension is a bunch of BS. When you have an adrenaline rush, what happens? You get stronger right? Use more gross motor skills right? Well here is a hint, what side is stronger? Your strong side, umm duh. That’s why you will see a lot of shooters that use the weaver push their second shot low left. Their first one may be fine, but, after that when the pressure is on, it can have a tendency to go to hell really quick. If your pushing forward, using a positive pressure with both arms and get an adrenaline rush, what happens? Your just putting more energy into the gun in

the exact opposite direction of the recoil. Not a bad thing huh?

Make sure your stance is solid. Have someone push on your hands in your shooting stance. (solid constant pressure) If you can't hold the same position, guess what the gun is doing.

Make sure your relaxed and in a positive position. Tension kills fast shooting. Tension is different than strength. (That's a fun one to explain that I am not even going to touch here. If you don't get it, call me.) Can you wiggle your toes in the shooting box before the timer goes off? Bet you can't the first time you try. The nerve going to the big toe is the longest nerve in the human body. Guess what, if your toes are tense, everything else is tense in between. Take a lower abdominal breath and relax your abs. Focus on your stress and get rid of it.

Okay so now you have a solid stance, your relaxed, have a good grip on the gun, and your can reach the trigger. Do you have sights you can see effectively? Can you make out the front sight clearly? Time to see the eye doctor? BTW if your over 40 and suffering the standard far sighted issue (ie need reading glasses) ask your doctor about a new procedure called CK.

Drills to develop recoil control:

Dryfire won't cure a recoil control problem. That is the one thing you can't do in dryfire. What it will develop is proper stance, grip, etc..

The first thing I want you to do is to aim at a berm that isn't too far away.

Say 10 yards. Make sure that it is a good backstop and your not going to get any ricochets. Load and make ready and get everything behind the gun right – grip, stance, relaxed etc. Aim the gun at a target and just burn off the whole magazine as fast as you can. What did you feel and learn? Where you able to shoot all the way through the magazine without stopping and was your trigger speed consistent? Were you able to keep a grip through the whole magazine? If so, great, skip to doing my timing drills. (tip is on my website or in PSV4)

If not, figure out where the problem is. Is it your weak hand? Did your tension build as you shot? What's going on? Have a practice partner help you diagnose the issue if necessary by having them watch you shoot. What is your body language? Can they see you tighten up? Side note: what is your trigger finger doing? Is it leaving the face of the trigger or bouncing on and off it? Once you can get that down, which may take a lot of ammo see if you can get a continuous sight picture during the whole magazine.

An interesting note: A lot of students have found that when they were able to get their gun under control, they generally cured most of their flinching issues.

Flinch or the phobic reaction to recoil

By Matt Burkett © <http://www.mattburkett.com>

Flinch is the subconscious reaction to the noise/recoil/fit of a firearm. Notice that I said subconscious. It is any uncontrollable action prior to the gun going off. Understand that it is nothing to be embarrassed about. It is something that can be overcome much like any phobia. The conscious part of the equation is the fear of the gun firing. The worst flinch I have seen was a guy shooting a .300 Winchester Magnum. He would close his eyes about two seconds before he pulled the trigger! That definitely didn't help him hit the target. In fact, he didn't even come near it.

Now flinch is different than recoil control. Recoil control or "timing the firearm" as I call it, happens as the gun is firing. There is only a few hundredths of a second difference but the difference in the effects on your shooting are incredible.

If you have never seen how the sights lift in recoil, you have been closing your eyes. IE flinching. Another thing to check for is to work on group shooting. If your shooting a 4" group off hand at 15 yards your most likely not flinching. If that group opens up with several flyers, you may be having an issue. If you can't keep them on the target you are having a real problem.

Lets take a look at the different things that contribute to flinch and see if we can help you with some drills to work through this problem.

Noise

Face it, loud noises scare us and cause a reaction. Its not normal for people to have an explosion happen in front of their face and not jump, blink, or have their muscles uncontrollable contract. We need to train, focusing on overcoming the body's physical and psychological reaction to the noise.

How do we go about doing that? Well let's start with a gun that doesn't make as much noise or even an air pistol. Learn some of the basics of shooting on a firearm, such as trigger control and sight alignment, without the distractions of the loud bang. Another thing that will significantly help will be double plugging. Using good ear plugs and a big set of ear muffs. This will help shut out the sound as it enters either the skull or the ear canal. You may want to also add a hat as this will reduce the amount of impact from the blast to the head.

Try shooting a few round safely with your eyes closed. (obviously after having checked your impact area and lined the gun up with the target) Feel what is bothering you. Is it the noise, recoil, blast??

Accepting the noise is one of the biggest things to learn. When the gun goes off focus on relaxing as much as possible. Use just enough grip strength to keep the gun from flying out of your hands. Start with a .22 rim fire and work your way up, learning to relax into the noise of each subsequent caliber.

Recoil

The rule with learning to handle recoil is to start small with a gun that fits you and work your way up.

The main technique that will help you handle recoil and your flinch is proper grip and stance. The less the gun pushes you around, the less chance your going to react to the recoil. What is the gun doing in recoil? Most likely you don't know because your eyes are closed.

Another thing that will help reduce recoil is to change your loads and reduce the weight of the recoil spring. Try working with "target" loads or reduced power loads. Focus on seeing as much as you can while the gun is going off.

Pain

Pain caused by sharp spots on the gun can cause a flinch. Several of my students have gotten rid of their flinch just by making the gun fit their hand better. Grip your gun up tightly with your hand until your knuckles and fingers change color. Now, feel the gun, whats bothering you? Let the gun go and look at the palm of your hand and fingers. Where are the marks? These are related to the spots on the gun that you will need to have a gunsmith modify for you. Getting rid of the sharp spots and edges, and you will be surprised at how much nicer it will be to shoot the gun.

If you can't hang on to the gun, you won't be able to shoot it well. Make sure that you have a good purchase on the gun. If your hands are slipping around, it will make it more difficult to shoot. Add skate board tape, checkering or rubber grips so that you can get a better grip.

Psychological

Forcing your way to learn to shoot through a flinch. Set a target at 10 or 15 feet. Have someone check your stance and grip by standing off to the side and cycling the empty gun while your aiming it at the target. Now load the gun and shoot the magazine off as fast as you can forcing your eyes open and learning to relax into the gun and recoil. The more you tighten up your shoulders, neck, etc the worse it is.

A true surprise shot. Get into your shooting stance and have someone else pull the trigger for you. Try this both with you eyes open and closed. RELAX and see how much an incredible difference in recoil there is. The gun just flips and comes back to center.

Traveling with guns.

I know after one of the darkest days in America, everyone that travels for shooting events is a little nervous. Relax it hasn't been a problem for me. I have been following the same rules as before September 11th and have flown many times without an issue.

The rules you need to follow.

1. Lock your gun in a hard case.
2. Put the locked case into another bag or case you can lock. Preferably a locking suitcase or pelican box.
3. Put ammo into ammo cases (factory boxes if possible) and cushion them to keep them from making noise if necessary.
4. Place the ammo 5 kilos or less (11 pounds) about 300 rounds of .38 super into a separate bag that your going to check. I use my garment bag which is one of the framed rolling type.
5. Grab some zip ties, preferably the colored ones. Easier to identify your bag with and you can also lock any zippers together. Helps keep'em honest.

At Check-In do the following.

1. Arrive at least 2 hours early for your flight. (minimum)
2. Go to the actual check-in counter inside the terminal.
3. Hand over your tickets and ID.
4. Ask for an Unloaded firearms tag and say your traveling for a competition. (seems to put them at ease)
5. They may ask to inspect your guns. Open up the cases and show them clear. Even better is if you have them disassembled in the locked case.
6. Place the signed tag inside the locking hard care, next to the gun.
7. Lock case and bag up etc.
8. Request additional baggage insurance if you want.
9. Make no declaration of ammo unless asked.
10. Say thanks for helping you out and go get on your plane.

DO NOT ATTEMPT

1. to take ammo, gun parts, or accessories in your carry on.
2. Use your shooting bag as a carry on. The bomb detector may pick up traces of powder etc. It's not worth the hassle.
3. Argue with the agent – If they are disagreeable ask for a manager.
4. to have baggage that has gun related embroidery or logo's etc. Your asking for it to get stolen.

That should pretty much cover the details.

Have gun on your trip. If you have any more questions about traveling or shooting in

general contact me.

BELOW ARE THE ACTUAL FAA REGS -

THIS DATA CURRENT AS OF THE FEDERAL REGISTER DATED OCTOBER 24,
2001

14 CFR - CHAPTER I - PART 108

View Part

§ 108.11 Carriage of weapons.

(a) No certificate holder required to conduct screening under a security program may permit any person to have, nor may any person have, on or about his or her person or property, a deadly or dangerous weapon, either concealed or unconcealed, accessible to him or her while aboard an airplane for which screening is required unless:

(1) The person having the weapon is --

(i) An official or employee of the United States, or a State or political subdivision of a State, or of a municipality who is authorized by his or her agency to have the weapon; or

(ii) Authorized to have the weapon by the certificate holder and the Administrator and has successfully completed a course of training in the use of firearms acceptable to the Administrator.

(2) The person having the weapon needs to have the weapon accessible in connection with the performance of his or her duty from the time he or she would otherwise check it in accordance with paragraph (d) of this section until the time it would be returned after deplaning.

(3) The certificate holder is notified --

(i) Of the flight on which the armed person intends to have the weapon accessible to him or her at least 1 hour, or in an emergency as soon as practicable, before departure; and

(ii) When the armed person is other than an employee or official of the United States, that there is a need for the weapon to be accessible to the armed person in connection with the performance of that person's duty from the time he or she would otherwise

check it in accordance with paragraph (d) of this section until the time it would be returned to him or her after deplaning.

(4) The armed person identifies himself or herself to the certificate holder by presenting credentials that include his or her clear, full-face picture, his or her signature, and the signature of the authorizing official of his or her service or the official seal of his or her service. A badge, shield, or similar may not be used as the sole means of identification.

(5) The certificate holder --

(i) Ensures that the armed person is familiar with its procedures for carrying a deadly or dangerous weapon aboard its airplane before the time the person boards the airplane;

(ii) Ensures that the identity of the armed person is known to each law enforcement officer and each employee of the certificate holder responsible for security during the boarding of the airplane; and

(iii) Notifies the pilot in command, other appropriate crewmembers, and any other person authorized to have a weapon accessible to him or her aboard the airplane of the location of each authorized armed person aboard the airplane.

(b) No person may, while on board an airplane operated by a certificate holder for which screening is not conducted, carry on or about that person a deadly or dangerous weapon, either concealed or unconcealed. This paragraph does not apply to --

(1) Officials or employees of a municipality or a State, or of the United States, who are authorized to carry arms; or

(2) Crewmembers and other persons authorized by the certificate holder to carry arms.

(c) No certificate holder may knowingly permit any person to transport, nor may any person transport or tender for transport, any explosive, incendiary or a loaded firearm in checked baggage aboard an airplane. For the purpose of this section, a loaded firearm means a firearm which has a live round of ammunition, cartridge, detonator, or powder in the chamber or in a clip, magazine, or cylinder inserted in it.

(d) No certificate holder may knowingly permit any person to transport, nor may any person transport or tender for transport, any unloaded firearm in checked baggage aboard an airplane unless --

(1) The passenger declares to the certificate holder, either orally or in writing before checking the baggage, that any firearm carried in the baggage is unloaded;

(2) The firearm is carried in a container the certificate holder considers appropriate for air transportation;

(3) When the firearm is other than a shotgun, rifle, or other firearm normally fired from the shoulder position, the baggage in which it is carried is locked, and only the passenger checking the baggage retains the key or combination; and

(4) The baggage containing the firearm is carried in an area, other than the flightcrew compartment, that is inaccessible to passengers.

(e) No certificate holder may serve any alcoholic beverage to a person having a deadly or dangerous weapon accessible to him or her nor may such person drink any alcoholic beverage while aboard an airplane operated by the certificate holder.

(f) Paragraphs (a), (b), and (d) of this section do not apply to the carriage of firearms aboard air carrier flights conducted for the military forces of the Government of the United States when the total cabin load of the airplane is under exclusive use by those military forces if the following conditions are met:

(1) No firearm is loaded and all bolts to such firearms are locked in the open position; and

(2) The certificate holder is notified by the unit commander or officer in charge of the flight before boarding that weapons will be carried aboard the aircraft.

[Doc. No. 108, 46 FR 3786, Jan. 15, 1981, as amended by Amdt. 108-4, 51 FR 1352, Jan. 10, 1986]

STANCE:

“ I still don’t see how a reverse weaver type position carries over to long guns. If I were to put my arms in a weaver or mod iso position right now while holding a Glock, one could come over and take the gun out of my hand and replace it with an AR or mp5 and the only adjustment I would have to make is to move my right hand back to the area of the trigger housing in the long gun. My left arm will stay bent in pretty much the same position.

Maybe I am doing the reverse weaver wrong but, I don’t see where it carries over. Kinesthetic awareness is a major factor in reactive shooting.

As PTGDVC alluded to, I have shot from every possible position during force on force FX. I have come to realize that trigger control and intestinal fortitude are more important than my latest greatest shooting platform.

Thanks for the reply. As for your other notes, I fully agree that more important than stance etc. is a fighting mindset. Without it, it doesn’t matter how good you shoot because you probably won’t make the decision to shoot when nec.”

This following is based on the shooter being right handed and not having any physical arm or spine issues. Will discuss weak/strong and rifle shooting at end.

Quoting two of my articles with modifications:

•Grip and Stance•

Most of the basic shooting problems that I see come from an improper grip (this includes tension and hand placement) and incorrect upper body position.

The basics: Keep the head up and straight - not canted left or right to the gun. Shoulders square. The arms bent. Hands together. Trigger finger free for movement. Both eyes open.

Place the strong hand on the grip as high as possible, both front and rear. The strong hand thumb should always be on the safety. (when shooting weak hand the thumb should also always ride the safety) I relieve the bottom rear of the trigger guard on my guns to put my right hand at a more natural angle and reduce the pressure on the joint of the middle finger.

The trigger finger should not touch or rub on the gun anywhere other than the trigger. The pad of the finger should be used - not the first joint. This will provide better trigger control.

The placement of the weak hand in a freestyle grip is where most people make mistakes. First the fingers should all be under the trigger guard. Your weak hand index finger should never be on the front of the trigger guard. Second, there should be total hand to hand contact at the left rear of the gun. (this is based on being right handed) The left hand should not sit straight forward on the gun. It should be canted at an angle with the back of the hand being higher on the gun than the front. If you trace your thumb on your left hand back past the knuckle to the base by the wrist, this should be in between the first joint and the knuckle of the right thumb. This is going to cock the left hand at an angle

and complete the contact between both hands. This also serves another purpose of bringing different arm muscles in on controlling the gun. You should feel the muscles on the top of the left arm by the elbow doing the work. If the hand is straight you will feel the strain on the bottom of the arm.

Both thumbs should be pointing at the target and your arms should be pushing out in a positive tension against the gun. Several schools teach a push/pull technique. Why should you pull on the gun when it is already going that way during recoil? Also be sure not to lock the arms out. This transfers all of the guns energy into your shoulders also does not allow you to work on the recoil of the gun.

The left arm should be more straight than the right arm, which is probably the opposite that you've been told. (If your shoulders are relaxed, not hunched up, and you are standing square to the target, your left hand has to be further out than the right hand.)

Grip tension should be about 60% weak hand and 40% strong hand. Do not strangle the gun. More tension in the shooting hand = less trigger speed. If you have a proper grip you will be surprised at how little work you have to do to control the gun. There are several drills I have to develop your grip, but, a good starting point is to use the same grip on the right hand that you would on a hammer. (what you use to hit nails with J) Use slightly more tension in the left hand. If you are seeing a significant upper right torque on the gun try increasing the grip strength on the left hand and decreasing the strength on the right. This should straiten the recoil path out for you.

This grip may feel uncomfortable at first. Try it out for a couple of weeks and I bet you will see a difference.

As for the stance I use check out the following:

Have you ever watched boxing? Notice how they are leaned slightly forward, standing on the balls of their feet, knees bent, feet about shoulder width apart, tip of the weak foot approximately 3-6" in front of the tip of the strong foot and their body is loose and relaxed. To find how much to bend your knees, I visualize a vertical line from my knee-cap to the ball of the foot. The hips should be in a natural position with the back and your center of balance low over the balls of your feet. I prefer to have the front of the shoulders a minimum of an inch in front of the hips. I lean the entire upper body forward. If the shoulders are at or behind center you will not have any control over your shooting. You shouldn't feel any pressure on the back or neck muscles in this position. If you are, you most likely are leaning the shoulders forward but not rotating the hips with them. I breath through the stomach for shooting as upper body breathing disturbs the gun. I also try to maintain about 60% of my weight on the balls of my feet.

Get into this shooting stance and have someone push against your outstretched hands. You want them to use a solid constant pressure. If they can push you over, you are too tight or your legs or elbows are locked. As more energy comes in make sure that you don't rock back on your heels. Your body will overcome it for you if you just let it; rotate the hips and upper body more and bend your knees slightly more.

This will show you how to apply positive forward tension with your whole body.

This is the way to the fastest shooting. Relaxed but in control.

Notes on the above:

The more relaxed and comfortable your stance, the better decision making you will do.

Failures I see with the Weaver Stance. IMHO

Quartering the body off center reduces the effectiveness of body armor by exposing upto a 1/3 of your chest.

Leaning around the right side of a barricade gives minimal exposure with the stance, but, the left side is awkward. With my stance exposure is minimized in either position by rotating the outside elbow inwards. This keeps the arm from being exposed. The only exposed area are the eyes and the gun.

Under pressure and adrenaline, I have seen the Weaver stance fail. When we get an adrenaline rush, which arm is stronger? Well we call it the strong arm for a reason. It seems to have a tendency to overcome the weak arm when firing resulting in the second shot (sometimes even the first) to be extreme low left. With my stance since you are using positive forward tension with both hands and arms, the stance doesn't self destruct when you put more energy into it. It just gets stronger.

Additional notes:

Weak/Strong Hand shooting: I use the exact same stance for this as I do for two hands. Main part I add is the anchoring of the off hand. This keeps the off hand from becoming a pendulum.

Rifle shooting: Same stance with a couple of minor changes. On a rifle I do pull it back into my shoulder with more energy being imparted with my weak arm than my strong arm. This helps keep the strong hand relaxed for better trigger control. Left arm is in approximately extended the same as when it was on the handgun. I shoot with the same head and body positioning that I use with a handgun.

Obviously since this is a stance discussion, the draw and presentation to stance hasn't been covered. It also doesn't cover my "pinch and roll" technique with the weak hand.

Remember to take everything with a grain of salt. Learn everything, use what works for you and your situation.

Eye Speed

“You can only shoot as fast as you can see.” Well its true!

Increasing your eye speed can have a dramatic impact on your shooting skills. Time lost on target transitions can result in seconds added per stage. Here is a way to increase your eye speed and decrease your target transitions.

Without your gun, take two one inch black dots with a 1/4” white center and put them about five feet apart on your living room wall. Now standing about five feet back bring the white dot on the left one into focus. Quickly snap your eyes only to the other dot and bring the other white center dot into focus. Don’t move your head use just your eyes. Now go back and forth as fast as possible bringing the center dot into focus each time. You will probably start noticing how your eyes first locate the black dot with your peripheral vision and then how your eyes zero in on the center and bring it into sharp clarity. Try this four a couple of minutes. You will probably develop a light headache, take a break and repeat. Your eyes have never had to work this hard before. Once you see some improvement put one dot three feet above the other one and practice vertical transitions with your eyes.

Now, move the dots back to the horizontal plane and put one just out of view. This way you have to move your head to get to it. Your eyes always lead everything! They are the fastest part on the human body. Use your eyes to snap over and start searching for the other dot, your head then automatically follows.

It’s time to add the gun--unloaded with no ammo in the vicinity of your practice area! (Assuming the use of the dot) Put the dot on the first white spot and pull the trigger smoothly. The difficulty of the shot will determine if you need to see the dot lift. Now snap your eyes to the other dot, focus clearly on the white spot. The gun will be catching up with your eyes and slowing to the white spot where you will pull the trigger again. DO NOT slam the gun to a stop, slide it into position. A good analogy for this is braking your car coming up to a stop sign. You don’t hit the brakes at the stop sign, you start preparing to stop earlier (except for those who California Stop). What you don’t want to see is the dot jiggling around when the gun stops.

NOTE: If you are shooting Iron sights vs. optics you would bring

the front blade into focus after clearly focusing where you want the bullet to go.

Practice smooth perfect transitions before trying to speed up. You have to teach your body what you want it to do before going faster. This also applies to reloads, draws, etc. and will help when you go faster so that you won't have any extra unneeded movements that waste time. Burn it in and then speed it up.

Reaction To The Buzzer

I have found that a lot of my students have been losing significant time on their draw just by having a slow reaction time to when the buzzer sounds from the timer. How do you find out what your reaction time is and more importantly how do you improve it?

Try the following out:

- * NEEDS: gun, ammo, and timer
- * Set timer for a random delay between 4-8 seconds
- * Load and make ready
- * Hit go on the timer
- * Gun out in the shooting position
- * Visual focus on the target
- * Take safety off
- * Place finger on the trigger and take up the slack (Don't AD!)
- * Tune your audio focus to listening for the start of the tone
- * When buzzer goes, fire a shot
- * Check the clock for results
- * Repeat, trying to react as fast as possible

Most likely your first reaction times will be .30 or longer. Work on the exercise until they are consistently under .20 and you will already have removed a minimum of a tenth of a second from your draw!

(A reaction time of .16-.20 of a second is optimum. My personal best is a .11 at Shooters World in Phoenix during a class with Chris Dysart. Chris went from a .34 to a average .18 of a second. That was a savings of .16 or in other terms it moves a one second draw down to an .84!)

Good luck everyone!

Comstock Factoring

You walk up to a stage and you hear someone say,
“Oh, that’s a ten-factor stage.”

Do you know what they mean and how the figure it out?

Comstock factoring is the average points per second. A one-hundred point course shot in ten seconds is a ten factor. So is a fifty-point stage shot in five seconds. Divide the factor by the time, and that’s the factor -- the amount of time earning a point on that stage should take.

You’re probably saying, “That’s nice and all, but how does it help me?”

Knowing the base factor can assist you in making the right decisions on how to shoot a stage. Say you shoot a “C” on a ten-factor stage at a Major, which is worth four points instead of five. Shooting the “C” cost you one of the available points on that shot. On the other hand, if you had taken an extra 0.10 and shot an “A”, you would have exactly the same score. The extra point would have been “eaten” by the Comstock factor.

A five-factor stage is worth five points per second, so each point is worth 1/5th -- or 0.20 -- second. If you shoot a miss on a five factor stage and make it up in exactly three seconds you have the same score. If you make it up in less than three seconds, you’re earning some points back. If you take longer than three seconds to make up the shot you’re losing more points than the miss cost you in the first place. Something to remember is that a miss on a Comstock stage is fifteen points: Ten penalty points, and the five points that you didn’t earn for an “A” hit on the target. What it boils down to is this: The lower the stage factor, the more important it is to shoot all “A’s” and vice versa; with higher factors, speed becomes more important. On a ten factor stage, you better make up that shot in a hurry or forget about it! You should always average a minimum of 90-95% of points available on a stage. These days, at the upper levels of competition, you need to earn 97% or more of the available points to win the match.

Buying a Used Gun

If the gun is factory basic and just used in the normal course of duty it most likely is a fair purchase. Check for over all fit, function and amount of wear. If it seems excessive, parts may need to be replaced. A used gun may be a great place to save some money if you are looking at customizing. When buying a used customized gun first find out who built it and how competent they are as a gunsmith. Are they a member of the American Pistolsmiths' Guild (APG)? Try to find out if the gun has a background that other shooters know. Is it known for constantly jamming or running perfect all the time?

Starting At The Top Of The Gun

Sights

If it's a scoped gun, you should check carefully for any cracks or major dings. What is the condition of the scope? Has it been modified by one of the scope customizing companies? This increases the value as most of the Tasco style optics need to be bullet-proofed. Remember even custom scopes break or burn out. Is the dot too large? Around a ten-minute dot is premium for Practical Shooting and a 20-minute dot for steel shooting works well. Minutes of Angle will be explained later in this section .Are the adjustments all the way to one side? This may be caused by improper mounting. Are there any cracks in the mount? Are all the screws tight? On an Iron Sighted gun, are they adjustable? Fixed sights although durable don't allow the testing or switching of loads easily. Bo-Mars are still the best adjustable sight on the market. Check for loose sight parts such as the blade or the sight base. Is the front sight serrated and ramped? Undercut front sights are nice but not practical if the gun is to be carried at all.

Compensator

Is the compensator loose? Does it twist by hand? Is there adequate clearance between the slide and comp? About 0.002" to 0.004" is needed. Is the slide hitting the comp? Look for shiny spots on the back end of the comp. Are the bullets hitting the plates in the comp? Look inside the comp for copper marks or tracks on the plates. If there is inadequate clearance you will have major accuracy problem. Check for erosion on the plates.

This where the bullet passes through the hole in the plate and the gas burns the edges of the hole. With the introduction of light bullets, plates can suffer from significant erosion, sometimes to the point that they break through.

Slide To Frame Fit

Check the slide to frame fit by gripping the gun in your strong hand. Grab the slide in the weak hand. Place your strong hand index finger along the frame and the slide. Rock the slide back and forth and up and down. By doing this you can tell the looseness of the slide fit. With Iron Sights, slide to frame fit is not as critical to accuracy as with a scope. The sights are on the slide whereas the scope is attached to the frame.

Barrel Fit

With the slide closed push down on the top of the barrel hood. If there is any movement, there will be an accuracy problem. It will not be able to lock up correctly. With the slide closed place your finger on the end of the barrel and try to move it around.

Trigger Job

If you question the trigger job, lock the slide to the rear and drop the slide on an empty chamber. **DO NOT** do this more than once or without permission of the owner. (You better really want to buy the gun!) If it goes to half cock the sear-to-hammer relationship must be adjusted or parts may to be replaced. You can check the over-travel on a gun by cocking the hammer and pulling the trigger all the way to the rear. Now rock the hammer back and forth - there should be no resistance from top to bottom. You should be not feel the half-cock notch rubbing on the sear. If there is some resistance or scraping, take it to a competent gunsmith and have it adjusted.

Magazine And Magazine Well

Do the magazines fall cleanly out of the gun when the release is pressed? This should be true even with the slide locked back using an empty magazine. Also, check the magazine itself - the followers for damage, examine the spring for tension, and look for excessive wear or cracks on the feed lips.

Test Drive

If the gun seems to be in good condition, the next step is to fire it. Take it to a range and put some rounds through it. Look for the following:

- * Does it perform consistently and reliably?
- * Is it comfortable?
- * Is it accurate?

If it passes all of the previous tests, by all means buy it.

Dryfire Practice Regimen

Here is an easy daily regimen that will help build familiarity, repeatability and stamina into your shooting. Try to do your dryfire practice during the same general time of the day as you usually compete. Make sure that the gun is unloaded and there is no ammunition in your dryfire area!

Draws:

Hands At Sides

10 Solid warm-up

10 Fastest/Smoothest possible

10 Solid

Surrender

10 Solid warm-up

10 Fastest/Smoothest possible

10 Solid

Misc. work

10 Draws to Kneeling

10 Draws to prone

5 Draws moving to a position

5 Draws off a table

5 Strong hand draws

5 Weak hand draws

Reloads off belt starting with gun out and on target:

10 Solid warm-up

10 Fastest/Smoothest possible

10 Solid

5 from standing to kneeling

5 from kneeling to prone

5 from standing to prone

50 Target Transitions on either miniature IPSC targets or the transition dots in the Practical Shooting Manual.

Find your weak areas (anything that you screw up often ;-)) and increase repetitions until the problem is worked out. Make sure at the end of every draw and reload, you have a perfect sight picture. Do not “pop” the gun up and down, force a follow through of a couple of seconds on target everytime.

Drawing off of a table



This is another place where I do it a little different from almost everyone else. This is the safest and fastest way I have found so far. Although, you do need to have average or larger size hands.

Put the gun flat on the table angled toward the first target. The strong hand comes down on the gun. Index finger goes in front of the trigger guard, and the thumb goes behind the beavertail. (See photo 1) If possible they go all the way to the table or surface the gun is resting on. Now pinch the fingers to pop the gun into the hand. The weak hand gets on the gun as you're driving it toward the target. Some of the advantages: the mag button doesn't get pushed in (so your mag stays in your gun, not on the ground); doesn't move the gun around on slick surfaces (less chance of it scooting off a table).

Here Are Some Other Ways To Pick Guns Up.

Add an extension, either an extended scope cap or a cocking handle, and grab the grip of the gun.

Lift the scope or the top of the gun up with the weak hand. (See photo 2) Then, grab the gun with the strong hand.

Timing Drills

One of the drills that I like to do most of the time and has had the most impact on my shooting ability is a timing drill. First we should have a discussion of terminology.

Timing of the gun:

I am not referring to the actual time the mechanism takes to return to battery. I am referring to learning the timing of the gun by the shooter. Since most guns return to battery in about 5 hundredths of a second, we cannot return the gun fast enough with our conscious mind. The subconscious will return the gun to point of aim by using the appropriate amount of muscle force during recoil. You will see top shooters push down on the gun if it does something it's not supposed to do, such as hitting a bad primer and not firing. This is not a flinch. A flinch occurs before and also during the firing of the gun.

You must shoot a full magazine on every string in this drill and you must not stop and restart in the middle of a magazine. Unless there is a safety issue, shoot the entire magazine at the required splits. You must have a relaxed positive stance and grip on the gun for this to work.

The major areas this drill assists are the return of the gun under recoil, calling your shots, grip control, and solidifying the stance. If you are not using a solid forward shooting stance, you will see the gun start going out of control and the sights moving differently after about 3-5 rounds. Please refer to my previous articles for more stance information or check my website at www.mattburkett.com <<http://www.mattburkett.com>>

You will need three targets, tape, and about 250 rounds of ammo.

The drill:

Start out with three targets 15 yards away. Load all of your magazines. First three strings are two seconds per shot. Like a metronome, have the splits be as close to two seconds as possible. Check your split times on a timer or have another shooter help you with the drill. Two seconds per shot gives you plenty of time to shoot an extremely small group.

First string, use as light of a grip as possible on first target.

Second string, medium grip on second target.

Third string, use a heavy grip on the third target.

Now unload and review your shooting.

You shouldn't have more than about a 2" group on each target. Compare where they are impacting on the target. Is there more vertical stringing or horizontal on the different groups? Which one did you feel more comfortable with? How did the gun feel with each grip? What exactly did the sights do? Did they rise straight up under recoil? Could you even see the sights under recoil? This will show you if you have a flinch. If you can't see the sights going up and down, there is a good chance you're blinking.

Figure out what grip worked best for you and use that for the rest of the drill.

Tape the targets.

String four, two seconds per shot on target 1 with your new favorite grip.

String five, one second per shot on target 2.

String six, .5 seconds per shot on target 3.

Now unload and review your shooting.

Once again we go back and look to see where our problems are showing up. What is the group dispersion on the targets? Is there a significant difference between the groups at two seconds and at .5 seconds? How much vertical error is there with the groups? What did the sights do at the different speeds? Diagnose what is happening. If you're getting a significantly upper right lift to the sights, grip a little more with your left hand and slightly less with your right hand (assuming you're right handed).

Tape the targets.

String seven, one second per shot on target one.

String eight, .5 per shot on target two.

String nine, .25 per shot on target three.

Unload and review.

How did your shooting go at this speed? Are the sights coming back naturally to the aiming point?

Critical things to remember:

The timing of the gun that you have learned is specific to that firearm and load. If you change any part or your load, rerun the timing drills because the gun itself has changed.

10 week shooting and basic fitness plan

Consult a doctor prior to instituting any type of fitness program. This program is for the average shooter that wants to move up a minimum of one Class within a 10 week time frame. Please add a 5 minute stretching program prior to every days exercise. This will reduce injury and increase the effectiveness of the training. All walking is done briskly or quickly, not at a slow relaxed pace. You have to get your heart rate up to see benefits of a work out program.

1. week one – write down goals for the 10 week project and for your seasons shooting
 - a. Walk briskly 10 minutes a day
 - b. Dry fire 10 minutes a day – basic dry fire plan
 - c. Hold gun up as long as possible weak hand and strong hand twice a day pressing the trigger to the rear without disturbing the sights.
 - d. Visualize 5 minutes a day of a perfect sight picture
 - e. Live fire practice timing drills and transitions
 - f. Compete in local competitions focusing on safety and smoothness
2. week two – review goals daily
 - a. Walk 20 minutes a day
 - b. Dry fire 15 minutes a day – advanced dry fire plan
 - c. Hold gun up as long as possible weak hand and strong hand twice a day pressing the trigger to the rear without disturbing the sights.
 - d. Visualize what you did perfect in the last match
 - e. Live fire practice draws and reloads on range
 - f. Compete in local competitions focusing on hits
3. week three – review goals daily
 - a. Walk 30 minutes a day
 - i. 10 minutes into walk do five 15 yard sprints
 - b. Dry fire 15 minutes a day focusing on transitions and drawing to positions
 - c. Hold gun up as long as possible weak hand and strong hand twice a day pressing the trigger to the rear without disturbing the sights.
 - d. Visualize shooting a smooth match and focus on the feelings of how that would feel
 - e. Live fire practice movement and box work
 - f. Live fire practice group shooting
 - g. Compete in local competitions focusing on speed
4. week four – review goals daily
 - a. Walk 30 minutes a day
 - i. 15 minutes into walk do sprints and run/shoot drill
 - b. Dry fire 15 minutes a day focusing on weak/strong hand draws and target transitions
 - c. Hold gun up as long as possible weak hand and strong hand three times a day pressing the trigger to the rear without disturbing the sights.
 - d. Hold gun up as long as possible weak hand and strong hand three times a day
 - e. Visualize perfect sight picture and the feel of the gun recoiling in the hand
 - f. Live fire practice focusing on speed and close target engagement

-
- g. Live fire practice focusing on difficult target transitions
 - h. Compete in local competitions focusing on smoothness and hits
5. week five – review and if necessary revise goals – are you on target to reach them?
- a. Walk 30 minutes a day
 - i. 15 minutes into walk work on balance drills
 - b. Dry fire 15 minutes a day – basic dryfire plan
 - c. Hold gun up as long as possible weak hand and strong hand three times a day pressing the trigger to the rear without disturbing the sights.
 - d. Visualize perfect match performance
 - e. Live fire practice timing drills and transitions
 - f. Live fire practice draws and moving to positions
 - g. Compete in local competitions focusing on speed
6. week six – review goals daily
- a. Walk 30 minutes a day
 - i. 15 minutes into walk work basketball drills
 - b. Dry fire 15 minutes a day working draws and reloads
 - c. Hold gun up as long as possible weak hand and strong hand three times a day pressing the trigger to the rear without disturbing the sights.
 - d. Visualize perfect sight picture on different target types
 - e. Live fire practice on steel focusing on transitions
 - f. Live fire practice on group shooting
 - g. Compete in local competitions focusing on visualization of perfect stages
7. week seven – review goals daily
- a. Walk 40 minutes a day
 - i. 10 minutes into walk do 5 15 yard sprints
 - ii. 30 minutes into walk do basket ball drills
 - b. Dry fire 20 minutes a day – basic plan and add reloads off tables
 - c. Hold gun up as long as possible weak hand and strong hand three times a day pressing the trigger to the rear without disturbing the sights.
 - d. Visualize winning the next match and the feelings involved
 - e. Live fire practice target transitions
 - f. Live fire practice moving targets
 - g. Compete in local competitions focusing on speed
8. week eight – review goals daily
- a. Walk 40 minutes a day
 - i. 10 minutes into walk do 5 15 yard sprints
 - ii. 30 minutes into walk do basket ball drills
 - b. Dry fire 20 minutes a day focusing on target transitions including strong/weak hand
 - c. Visualize shooting on the move and prestage
 - d. Live fire practice shooting on the move with multiple targets
 - e. Live fire practice timing drills
 - f. Compete in local competitions focusing on smoothness and shooting on the move
9. week nine – review goals daily

-
- a. Walk and light jogging 40 minutes a day
 - i. 10 minutes into walk do 10 20 yard sprints
 - ii. 30 minutes into walk do basket ball drills
 - b. Dry fire 20 minutes a day working smoothness
 - c. Hold gun up as long as possible weak hand and strong hand three times a day pressing the trigger to the rear without disturbing the sights.
 - d. Visualize competing in a match
 - e. live fire practice focusing on draws and reloads
 - f. live fire practice focusing on group shooting
 - g. Compete in local competitions focusing on pushing your limits
10. week ten – review goals – have you reached them yet?
- a. Walk and light jogging 40 minutes a day
 - i. 10 minutes into walk do 5 15 yard sprints
 - ii. 30 minutes into walk do basket ball drills
 - b. Dry fire 20 minutes a day in the morning and 10 minutes in the evening
 - c. Hold gun up as long as possible weak hand and strong hand three times a day pressing the trigger to the rear without disturbing the sights.
 - d. Visualize smoothly doing all the basic shooting skills
 - e. Live fire practice focusing on transitions
 - f. Live fire practice focusing on stages
 - g. Compete in local competitions focusing on perfect shooting

tips for making your Burkett Cross-Competitor SVI IDPA friendly.

1. Use 13 coil springs in your 126mm mag tube to help push the follower up so it locks back every time. Also helps them eject really well!
2. Make sure follower goes to top of magazine without dragging.
3. Cut the spot right behind the slide stop down so that you can disengage the slide stop easier. (call if you're lost on that one)
4. Make sure your ammo isn't too long so that it accidentally locks the slide back too early.
5. Run an Aftec extractor and a 10-12 pound recoil spring. Test for function!
6. Make sure that the followers don't go too high and lock the slide back early.
7. Make sure slide stop doesn't release too early when inserting magazine.

IDPA Tip

When going up to a low-cover position, focus on the spot on which you are going to position yourself. Now use the knee that is on the “outside” of the barricade as the one going to the ground. For example, if you are shooting around the left side of a car, use your left knee on the ground. This will give you more rotation and angle with your upper body and help you reduce those cover penalties.

IPSC Tip

Swinging Targets: To Trap or Track?

Trapping a target is leaving the sights in a place where the target is going to show up and breaking the shot when the target gets there.

Tracking a target is following the target with the sights and breaking the shot while it is still moving. Don't forget to follow through! (Like shooting a shotgun)

Lock Time is the amount of time from sending the signals to the muscles to break the shot to the bullet leaving the barrel. This varies per individual shooter.

The problem with trying to discuss moving or swinging targets in writing is that the shooting is totally dependent on the shooter's ability and the difficulty and distance of the target(s).

You have to decide whether you want to trap or track the target. For most shooters of D-B class, I suggest trapping on a swinging target. Figure out where it is going to go and break the shot when it gets there. Also consider how much time is available at the stopping point of the swing (if you can shoot it where it stops) and compare that to your average split for two A hits at that distance. You can work this out by carrying a stop watch. Nearly every top shooter has one in his bag to figure out difficult chunks of stages and movers. If you can't get both shots off confidently, wait until the second swing and hit it again.

The primary problem with trapping is waiting too long to break the shot. Your first shot should happen as the C zone on the swing breaks into the sights.

For A-GM level shooters, I recommend tracking or a track-trap on swingers. Move the gun with the swinger until it is shootable. It is almost always necessary to lead the target in the C zone to get an A. The tricky part is to keep the gun moving and not to follow the target past the stopping point. Once the target changes direction, make sure to get the

sights up to the other half of the C for its upward swing.

The primary problems with tracking are following the target back into either the hard cover or no-shoot and shooting too late.

Movers are another story. Trapping a mover is almost not possible in IPSC due to the generally small availability of the target. Tracking is therefore needed almost every time. I would suggest that you always lead the target and keep the gun moving. If you don't, your locktime and the distance to the target will cause you too either hit C's, D's or shoot behind the target.

Remember to not get distracted by the dirt puffs in the background when you're shooting at a mover or swinger. These messed with me for a long time as the visual effect it creates is that you missed. Just keep on the sights or on the exact spot you want to aim for.

The single best piece of advice I can give you is to find a range with moving targets and swingers that you can practice on and shoot at a lot!

Dryfire article for the Las Vegas Police Department magazine

Dryfire practice with an unloaded gun is the safe repetition of a particular skill to increase its efficiency and effectiveness. Examples: draws, draws into position, reloads, etc.

If you carry a gun, you need to establish a dryfire training program for your personal safety and confidence. If you are an instructor, please help your students develop just that.

When I train, I will do an average of 150 draws and about 400 reloads in a 20-30 minute dryfire session. I see this as an absolute minimum for every day preparation during the competition season. Here is another interesting note for you. When I put on a holster or other mode of carry I will do a minimum of 10 DRY draws with it in the clothes I will be wearing that day before I even leave the house. Many times I am amazed at the problems that stem from combining different types of clothing. A particular type of shirt fabric might bind on the inside of a jacket or pull with the handgun when using an IWB (inside the waistband carry holster). This has caused me to make several adjustments to my clothing to improve the draw.

The first reason for doing the draws every day before leaving is that it reminds the psycho-motor program (muscle memory) of the location of the items. This is especially important if the position of your gear changes frequently or if you use different carry guns/holster combinations.

Why would it be important if you are always using the same rig? Because you may be attacked leaving your house! You never know when or where some thug is going to want revenge because you put him in jail. This warms you up for the day and reminds you that you may be involved in a deadly incident. It also builds the confidence that you will be able to handle the situation if it does happen.

I personally will not let a student even think of carrying a gun until he has done a minimum of 500 dry draws from his equipment and has his draw time under 1.2 seconds from concealment or 1 second unconcealed. Remember that the faster you draw, the more time you have to handle a situation such as a knife wielding attacker. Try this out: take a stopwatch and see how far you can sprint in 2.0 seconds. Now time your draw to an accurate shot on a 10 yard target. Your draw is likely over 2 seconds and yet you can probably cover more than 10 yards in that time! And that doesn't include reaction time either. Also make sure to practice dry drawing and moving!

One of the best ways to improve is to get involved in competition shooting. Try an IPSC or IDPA match. If you have never seen this type of shooting competition before, be prepared to be stunned at the level of competence on the range. (<http://www.uspsa.org> <http://www.idpa.com>) If you would like to see some examples, stop by my website and download some QuickTime clips. What you are going to find when you shoot your first competitions is that you will most likely get your ass handed to you. Hang in there, and learn to shoot under stress. You will improve quickly and this will give you significantly increased competence and confidence with your handgun. When you can hold your own in competition like this, you can be assured that you are shooting better than nearly every bad guy in the universe!

A few things to think about:

1. Practice realistically - draw from positions that you may be in. Example: work on the drawing sequence while seat-belted in a car with the door closed and then exiting the vehicle. This is a more complicated series of actions. Figure out what you need to do and practice it. (Remember that depending on the situation, sometimes it is better to stay in the vehicle to fight.)
2. Practice drawing while moving, since the first thing you will do when confronted with a real shooting adversary is try to find cover and draw simultaneously.
3. Practice while wearing all of your gear that you use while on the street. Try and keep in mind seasonal adjustments to your wardrobe.
4. Have no ammunition in your practice area. Clear your gun and practice magazines in a separate room so that no accidents can happen. Check your gun every time you pick it

up, especially if you left the area and came back.

5. Use the dummy rounds for training from ST Action Pro. <http://www.staction.com>

On a side note, handgun skills can translate to long gun skills but not vice versa. Huh? What the heck does he mean by that? I mean that when a shooter learns to use a handgun at a high level, they will automatically be able to shoot a rifle very well. But a sniper does not make a pistolero! A rifle is relatively easy to shoot since it is tied to the structure of the body with the stock. It does not show the failures of improper trigger control that will become obvious when shooting a handgun.

Trigger Control

One of the issues that most people have is that they don't understand trigger control. Learning the pin and reset technique will help you learn the distance of the over-travel and reset which are most important parts.

••••

There are four parts to a trigger.

1. Pre-travel
2. break
3. over-travel
4. reset

Warning: Do not mess with the trigger of your gun unless you know what your doing. Take it to a qualified gunsmith and let them do the work.

Pre-travel is the amount of "play" the trigger has before engaging the sear. I like a lot a pre-travel. This gives my finger the opportunity to engage the trigger and get a feel for it. It is almost nec. to slap triggers that have no pre-travel since you can't interface with it. I like about 14 ounces of pre-travel on my 1911 type triggers. On a 1911 you can check this by having the gun fully assembled but without the beavertail in place. Lift the left side of the three leaf spring (the sear leaf) and then use a trigger pull gauge to check the pre-travel. On a Glock this is almost impossible to measure because you are partially cocking the firing pin during the trigger pull.

The break is the actually disengagement of the sear and hammer. I prefer my triggers have about a 21-26 ounce pull on a 1911. The Glock triggers I use are set-up by customglock.com and they break right about two pounds.

The over-travel is the distance the trigger moves from the break to the contact with the frame. On a 1911 this is set by the screw at the bottom of the trigger face. I prefer a bit of over-travel. This helps keep my finger from running into the frame especially weak or strong hand.

The reset is the distance from the contact of the frame to the reengagement of the sear and hammer.

A well set up trigger should feel clean with no dragging anywhere. It should bounce back to the reset.

I have Don Golembieski of Kodiak Precision set up the triggers with a slight rolling break on the sear. The way he does them is pretty amazing. Most people can't feel the roll on his triggers and think that they are a crisp break. Too crisp of a break for me and I can see movement in the sights.

••••

We need to get rid of your flinch. There is no way that you can possibly learn to feel a trigger if all of the muscles in your hand are firing and your closing your eyes during the recoil. Read my article here and watch “Volume 4 – How to Shoot Faster!” to work through your flinch. Once this is overcome then we can work on the trigger control.

••••

Variable trigger control is like a variable sight picture. Targets of different difficulties require more or less work. The concept of a varying sight picture has been discussed many times by myself and Brian Enos. I think the first publication of this was in his book “Practical Shooting – Beyond the Fundamentals”. You can order it from my online store if you don’t have a copy.

I believe this is the first time the concept of a variable trigger pull has been discussed. On a 5 yard target, you just don’t need to do the same amount of work that you would on a 50 yard target.

Here is a drill that you can use to work on the concept.

Set up three targets. One at 5, one at 10 and one at 15 yards. It helps to have a high capacity gun so that you can keep shooting. Shoot each target with 2-4 rounds trying to go as fast as you can, yet still feel the trigger reset on the 10 and 15 yard targets. Only A’s count. Work on your target transitions and try to reduce them as much as possible. You can also do this as a timing drill shooting an entire magazine into each target with a reload in-between. This will show you your grip and stance failures. If you shoot and at anytime need to readjust your grip or stance, you didn’t start out right.

Here is an interesting post from Sam one of my forum users:

Matt, I was out training with another USPSA Master today and we were discussing your training DVD’s. (I emailed you about a month ago about pinning the trigger, and I’ve been working on it daily since your kind reply.) I’ve discovered that I can shoot one ragged hole at 5 yards by pinning the trigger every time. Firing splits of .65 I can feel the reset click every time. I can shoot 7 yd Bill Drills, all “A”s in about 1.80, no problem. But the “one ragged hole” groups take about 5 seconds.

With splits any faster than .65, the gun seems to still be travelling backwards in recoil as I’m trying to feel the reset. The nice click that I

like to feel is gone, drowned out by the movement of the gun.

So, here's the big question? Does Matt Burkett actually pin the trigger on every shot?

Can you feel it "click" with a split of .40? .20? If you can, I'm totally amazed! And, of course, I'll try to figure out how to do it too. But, is it realistic to go for that kind of control? Or is trigger pinning something you only do when extreme accuracy is needed?

Thanks.

Sam,

I can generally feel the trigger down to about 25's or 30's. Below that it gets really difficult unless I am completely focused.

The basic goals of pinning the trigger are:

1. Learn the distance to trigger travels to help keep from slapping the trigger.
2. Bring your attention to the trigger.
3. Reduction of flinching.
4. Improve your timing of the gun.

Variable trigger control is necessary -for fast shooting just like a variable sight picture. Hard target pay more attention to both. Easy target pay less attention to both.:

Swinging Targets

I look at swingers in a couple of different ways.

Trapping: the concept of shooting a swinging target when it is at its pause point. It helps to time them with a stop watch to know how long the pause is.

Tracking: the concept of following the swinger with the sights and breaking the shot while keeping the gun moving. Now for me I usually put the sights in the leading -1/C zone.

Most of the targets I will track then trap. Break one shot while it is on the down swing and one shot while it is stopped. Sometimes they are track/traps. It all depends on your skill level and comfort level with the targets along with the speed of the swinger. Use a stopwatch to figure out the entire available exposure time and how long it takes to get started. If possible time it repeatedly. Activation time is fairly critical as it will tell you when you can fire the first shot and that will decide if it will be a trap or track.

If possible get to a range that has a swinger and shoot the heck out of it. It will help you get over the negative mental associations that swingers generally have and help you build up the confidence you need to shoot well.

Long Range Shooting

Last year I ventured into long range shooting. Quite an interesting experience! Hope you enjoy the article!

Why should a pistol shooter care about Long Range Rifle (LRR)? As you go through the learning process, it will increase your knowledge base about the science of shooting. In particular, the information about ballistics and reloading from the LRR will significantly change the way you understand pistols. Pistol shooters also tend to lose sight of accuracy – no pun intended – which is the primary focus of an LRR shooter. Besides, it is a real kick in the butt to learn something new, especially a sport that is as difficult as LRR matches.

Lessons I have learned in the last year.

In 2003, I started shooting long range precision rifle competitions. This started with the MGM IronMan and the MOR or Manually Operated Rifle Nationals and continued on to the Sniper National Championships at RiflesOnly in Kingsville Texas.

I use to think that 500-600 yards is a long shot. Little did I know that you really don't even start shooting a rifle until you are over 600.

Lets get started with the equipment I have tried out and what I am using now.

What I decided to work with for the 600 yard targets at the MGM IronMan was a custom upper from ASA in .223 with a 26" barrel and a triangular handguard that weighs about 3 pounds by itself. It just didn't end up shooting as well as I wanted with the ammo and optics I had available so I ditched it at the match and borrowed a Remington 700 PSS in .308 with a Leopold on it from Mark Buchanan. Worked pretty well and Mark had his dope down for the range. Got 7 out of 10 hits on the long range targets with a gun I had never shot before. Thanks Mark! Ended up winning the match with a new shotgun from Bevin Grams of Grams Engineering, a borrowed LRR, a borrowed Trijicon TA-11.

The first LRR I tried was a Blaser LRS. For a factory gun, it is an incredible rifle, very fast bolt throw, and extremely accurate but there are a few disadvantages to it for competition. It has the 10 round magazine capacity that is almost mandatory to be competitive in the sniper competitions. The only issue is getting the mags in and out of the gun. It

is just not designed for fast magazine changes. The straight pull bolt is amazingly fast to operate but you have to keep the locking collet extremely clean or it can jam up on you. The only other issue is the weight of the rifle. This has been reduced in the LRS 2 – the replacement model of the LRS I was shooting. The main problem I have with the new design is that only 5 round magazines are available for it and the possible unreliability of the bolt mechanism. The scope that was on the rifle didn't do the job I needed it to, either. First major lesson learned about shooting a rifle – Glass is everything. When I flew to the MOR match and tested the gun after landing it hit almost 2 feet to the left at 100 yards. The scope that was on it was from a company that doesn't exist anymore so no reason to mention who it was. I borrowed a rifle from James Darst and it was a Remington 700 in 6.5 x .284 with a Night Force scope on it. This was my first real introduction to the NightForce scopes and how wonderful they are to use. Ended up 2nd overall and thought that I would have to look at shooting more LRR matches. I had been looking into some different scope systems including the Horus Vision products and from their website I called up Jacob Bynum with Rifles Only. First time we talked on the phone we pretty much acted like long lost friends. He already knew who I was since his wife (Lisa) had bought him my videos for Christmas. What a great guy with an incredible knowledge of sniping. He made me an offer that I couldn't refuse, fly over and take a five day class and shoot my first sniper match. I told him that I didn't have a rifle to shoot his train up with and he generously offered his personal AI. Now if you don't know what an AI is, it is the standard issue sniper rifle of almost every NATO country except the US and sells for about 5K! I asked him about recoil and he started laughing, Then said that it was suppressed and I didn't need to worry about it. He had one of the first generation Horus scopes on it. If you aren't familiar with the Horus set-up, it is a scope that has a mil lined reticle. It is based on hold-overs and tied to the pda software Atrag. More information can be found on the website <http://www.horusvision.com>

There are two basic concepts in long range shooting. The standard way is to adjust the turrets to the range you are shooting. For example if you have your .308 sighted in at 100 yards and then laser a target at 560 you would look at your range card and then dial in the adjustments needed to hit it. On the Horus, you range the target then either refer to a range card or the Trag software and use a line in the scope to hold over. Both have advantages and disadvantages. Someone could write a book on the differences. I have tried and actually like both of types. I think the choice of scope and reticle should be dependant on what kind of competition you are entering. If you can, try both and see what you like better.

The train-up at Jacob's was awesome. Here is some information from the train up and my first sniper competition that I thought would be interesting to include.

.....

Well, we have been working our butts off over here. If you had told me last week that I would have been shooting at 681 yards on a moving target and hit it I would have said you were nuts! I was 7 for 10 on it! I had some serious issues at other distances. From my 3 gun shooting, my focus on a scope stays entirely on target. With the Horus reticle and using line three and below you need to spot the target, look to the number in the scope, follow the line back to your lead/wind call then shoot. When it is done right, it rocks! Takes a bit of learning but when you get it down, wow. No adjustments, just put the right hold over and lead/wind in and pull the trigger. Pretty damn trick. Check out the H25 lighted reticle if you get a chance.

Here is what we covered in the last couple of days – short list and definitely not all inclusive:

A small list of a few of the things we have covered.

Proper positioning.

Wind/temp/alt/BP/etc.

Angle shooting

Weak hand prone, kneeling, standing off a barricade

Offhand

Shooting out to 1000 yards with .308 and 1720 with .338

Ranging with lasers and Mil-dots

horus reticle system

Proper rifle cleaning

How over cleaning damages a rifle

Use of a sniper log book and data tracking

Proper rifle cleaning and not over cleaning

Proper use of scope power at distance – low as possible

Sitting/standing/kneeling/squatting/offhand/several variations of each

Low light shooting

Night Shooting at 400 on a mover

Moving targets from 100-680

Trapping versus Leading moving targets

Rapid bolt work/loading and keeping your head on the gun

Importance of Follow through

Learning trace (following the path of the bullet) while spotting

Team communications

Situational awareness

Team shooting with five snipers and multiple targets/Communications

Multiple static target engagement with a 400 yard mover
Urban shooting positions including windows and rooftops
High angled fire
Continuous wind correction and effects of atmospheric conditions on bullet flight
Stress fire – run 200+ yards and engage 5 targets from windows out to 617 yards

Anyway, tomorrow is the last day of class, then the sniper competition. There is so much to learn that a week is way too short of a class. Sure does help bring you up to speed on the stuff in the crash course train up. Long range rifle shooting is a combination of technology, technique, and art. You could definitely spend a lifetime learning it, but taking a class with Rifles Only will absolutely shortcut that process! I can't give enough kudos to the staff of Jacob, James and Thomas at Rifles Only. They really care about helping the students improve and push them enough to get fantastic shooting out of them but not too much to have the students lose confidence. No student is left behind, yet they still cover the information fast enough as to not lose interest. That can be a daunting task for the instructors and they have done extremely well.

We finished up with the long range rifle training on Friday and the final event the Rangers ran was pretty grueling. We have been training with 5 Rangers for the last week along with several officers and a top Cowboy shooter. I have been getting a crash course in what the Ranger snipers have been doing for a while. They are a fantastic group of guys that make me proud of our Army. Their last event was about 2800 yards of running with shooting from 10-12 locations. Try hitting a golf ball (hanging from a string) at 100 yards after humping your rifle and gear 500 yards! Two of the five got it, which I thought was down right awesome.

Well the match and the training is over. I personally did better and yet worse in many ways than I thought I would. Talk about a frustrating experience. One bullet moved me from first to fifth over all. Even after missing the 400 yard cold bore shot Saturday morning and losing 100 points for that round, I was leading until the Saturday evening night shoot. Then I got a little behind. Had a rough time with the 400 yard mover. Still not sure why the dope was wrong on the scope as I dialed the amount in called by the Palm Trag2 software. According to Thomas all my shots were just underneath it with the right lead. The 500 yard cold bore the next morning pretty much sealed my fate when it was dead center and an inch low. I am wondering if some of the dope issues were do to the significant weather changes during the week. It had cooled off 25 degrees and that may have had

a serious affect on the velocity. It was difficult to hang in there mentally after Sunday's Cold Bore Shot that I felt put me way back. Another rule of competition is to never ever give up until the last shot is fired. You never know what is going to happen.

Jacob and staff must be partially insane with some of the events they had us do in the competition. Weak shoulder mover from the sitting position at 100 yards off a barricade. BTW the target was only six inches wide by four inches tall. We shot 29 separate events from 1 to 20 rounds each in two and a half days. It is a butt kicking, tough, tiring match and I would do it again in a heartbeat! Everyone at the match did a great job, was safe and there were no injuries which makes it a complete success.

Ended up 5th overall. All in all it has been an amazing time learning the new techniques in an art that is somewhat similar to pistol shooting and yet so vastly different. Some of the lessons from pistol shooting carry over like compressing the time it takes to make an acceptable shot and when it is necessary to crank it up and work that bolt and get bullets down range.

.....

I shot my second match at <http://tacproshootingcenter.com/> and used a Tubbs 2000 from McMillan. It is an absolutely beautiful rifle. Had to tape some padding to the stock to shoot weak shoulder since the gun is really designed to shoot one sided (you order the gun for right or left handers). Had some problems with it. One minute it would shoot great, next it would seem to throw the rounds. Not sure if it was a problem specifically related to the demo gun I was borrowing or if the platform is just very position dependent. I had put down a deposit for one and cancelled the order when I was informed that it would take 10 months to get it built due to their military contracts. I still would like to have one to test it out more extensively. This was a team match and I partnered up with Todd Hodnet whom I had met in my first train up. Todd shot a great match and won overall top gun and I took third.

My third match was at Rifles Only and used Jacobs rifle again. Didn't do as well with it as the first time. Ended up 9th. Little did I know, more frustration was waiting for me at the first Rifles Only Sniper National Championship.

The fourth match of the year was the finals. You had to have competed in 3 matches to get invited. The match was listed as 24 hours of hell. That was pretty much right on the money. I wouldn't wish that match on someone. It was brutal. Have I said how tough that match was yet? It was down to 30

degrees at five in the morning. Didn't help that I didn't get to check my data the morning of the match since my rental car got broken into. Didn't get anything stolen at least, but it cost me the chance to get local on site data. Ended up 15th after some stupidity. Loaded 6 rounds in the dark for a five round stage. Cost me a stage DQ. The real bummer was finding out that it was the best event I shot. It was the 300 yard mover and I shot about a 4" 6 shot group. Still feel like an idiot when I think about that one. He had us do almost everything in that match. We started at 1000 yards and shot the closest target at 35 feet at a 70 degree angle from the third floor of the tower.

I shot a new gun in this match, a Remington 700 mil-spec with a 5R barrel. Here are the specs on my kit that I shot at the Nationals.

Remington 700 Stainless special with mil-spec 5r
AICS 1.5 chassis system from accuracy international
MGSS titanium suppressor
3 10 round magazines
1 5 round magazine
Harris 6-9" swivel bi-pod
Nightforce 5.5-22 NPR2
Butler Creek flip up scope caps
Bubble level
Bedded by Kodiak Precision
Muzzle braked by Kodiak Precision
Accuracy International Sling
Accuracy International Hand Stop
Jewel Trigger set to 1 pound
Leica 1200 Scan Laser Rangefinder
Neucon Laser Rangefinding Bino's
Hydrastorm Matrix Backpack
Palm 100
Atrag 2 software
www.perry-systems.com software
StoneyPoint shooting stix
Black Hills 175 grain .308 match ammo
Spec-ops dragbag
www.3gungear.com sniper bag system
Original Swat 9" side zip boots
511 tactical pants
Gore-tex jacket
Engle Ballistics compression garments
Dewey Cleaning supplies

Butch's Bore Solvent



To wrap this up, it was an amazing year learning the LRR. Finding out what it takes to be competitive in the sport was daunting but very worth it. Thanks to everyone that has helped me out in the last year and I look forward to seeing all of you at a match this season.

MGM Ironman Championship

The Insane Asylum- Someone let the inmates design a match!

June 2003

I just finished up the MGM 3 gun championship. If you haven't had a chance to shoot the match, you have to try it next year. Let me give you a basic idea of what it takes to compete there - reliable equipment and a lot of ammo. 1021 rounds minimum on 10 stages! This match is about fun and endurance.

You will need your handgun, preferably a high-cap, about 7 magazines or 4 27+ rounders and 450 rounds of ammo for it. I wouldn't take a minor gun to the match since you have to hit a lot of swinging plates and make them spin all the way around. You're going to need a good holster. I used the new Ultimate Ghost holster and the retention was incredible. The only problem was that you had to go prone on some stages and shoot your rifle while your pistol was in your holster. I just had to move it far enough back so that it wouldn't hit the ground. If you're not comfortable running with your gun in your holster, get a different one before you go to this match. Make sure that your mag holders will still have mags in them after 100 yards of running.

I would suggest shooting open at this match the first time, especially for the shotgun part. Loading up to 50 rounds on a stage off of the side saddles and anywhere else you can conceive of carrying shot shells will just about take it out of anyone! Blisters were fairly common in limited class.

The Match:

Before the match, I was trying to prepare everything. "No matter what you do to prepare, you won't be ready when you get there." That was what I was told by one of the former competitors. He was right. Until you have done it once, you just can't be ready for it. The frustration during the preparation was amazing. I didn't have my own open pistol set up as I had just shipped mine back to the factory. I was going to try to run 9mm Major for the season and just couldn't control the ejection so I scrapped the project and am having the gun rebuilt in .38 super. Well that left me without an open gun so I contacted one of my students and friends Dave Magateaux and he lent me his SVI Burkett Open. There, the pistol issues were fixed up.

I was working on building the rifle in the last two weeks before the match. In testing I noticed that the ASA aluminum free float handguard

was getting really hot with just a few rounds through the gun. I contacted John Gangle up at JP Enterprises and he shipped me one of his lightweight fluted handguards. Best addition to the gun there is if you're running open. It does an amazing job of keeping cool even on the stages with 80 rounds of rifle. I was shooting one of the Simons 1.5x5 shotgun scopes with the pro-diamond reticule. I just didn't feel there was the clarity necessary for the the shots past 200 yards so on the advise of Taran Butler, I ordered the Trijicon Tr-21. Much better optically, but after 300 yards the reticule covers up the target. Hold overs or Tennessee Elevation are all but impossible with the scope. It works very well for up to 300, though. Since we would be shooting out to 550, this one wouldn't work either so I ordered a Burris 1.75x5 that I ordered the night before the match. More on that later. The compensator for the rifle I chose was the Triangle Sports/Benny Hill comp. Works very well and pretty reasonable. I had sent a Bennelli 21" M1 Super 90 Field to Grams Engineering to completely redo. Bevin got it back to me just prior to the match with one of his custom prototype shell wells. I hope he never gets to building them for the public as it is an incredible advantage. I think I did around 45 speed loads in the match and only missed one on the drive-by stage when the truck hit a big bump in the road. The rest of the work Bevin did is also well thought out. He modified nearly everything on the gun and put a prototype Jpoint mount on the rib. Slug shots with the dot nice and low and inline with the front bead were easy. The gun ran darn near flawlessly. Out of 450 rounds of shot, 00 buck, and slugs I had one ejection failure. (Which I think happened because I choked up on the gun too much.) Considering shotguns have been my worst enemy in three gun competitions, it was mind blowing to get one that worked! (In the Texas 3-gun, I had used 3 shotguns just to finish!)

I borrowed a Blaser LSR .308 from Eugene the week prior to the match. I haven't done a lot of long range shooting in my life. The Blaser makes it pretty easy being able to group .5" at 200 yards. The other really neat thing about this rifle is the action. It is a straight throw bolt. Pull it straight back and push it straight forward. Incredibly fast and smooth. The problem was the Tasco 10x scope on top of the rifle. Found out that it wouldn't hold adjustment so I had to give up on this rifle and borrowed Mark Buchanan's .308 on the range. Having never shot it before with winds gusting all over the place, I got 7 of 10 hits on the distance targets, which were at 550 and 653 yards. That counted for a 140 second bonus on that stage! THANKS MARK.

Now I got all the ammo and such in and built. Quite a bit when it is

all added together. I took 500 rifle, 50 .308, 200 slugs, 250 shot, 100 00 buck, 400 pistol to the match and didn't come home with much at all!

Flew up on Wednesday to Boise, Idaho with the maximum baggage allowance. Luckily Scott Milkovich took a bunch of my ammo up with him. Checked out the match and got to sight in at 8:00 pm. My gun was shooting ugly groups between 2-4" at 100 yards. Didn't know if the problem was the new comp or the new Burris Scope. I figured out it was the scope at 10:00 PM. Went back to the hotel and borrowed a Trijicon TA11 from one of the shooters. (Thanks Heidi!) . The next morning I was able to get a rough zero using the Jpoint on handguard. Got it within 6". The RO on the first stage allowed me to check the sight in and make some adjustments. That was one of the coolest things about the match, everyone was helpful and wanted to have fun. People could actually coach shooters through a stage. Try that at any other match! I could see this being a big thing to help new and lower classed shooters out that get lost in a stage. It could really help with shooter retention. At this match, coaching is almost mandatory on most stages as they are just too damn long with too many positions and weapon transitions that it is almost impossible to remember a game plan!

Here are a couple of stages that we had to shoot. I had a hard enough time remembering what to do when I was shooting the stages much less trying to recollect them properly afterwards!

Our first stage was #9 with 24 rounds of handgun and shotgun at four plate racks and 28 rounds of rifle at 14 partial targets at about 50 yards. Won the stage in 85 seconds. Those tec-loaders sure worked great! It was the first time shooting the Trijicon TA11 in a stage and since it was basically a dot, it did just fine.

The second stage#10 was called the surprise stage, although it really wasn't. You were allowed to look at it because you needed to help reset everything. It was 19 rounds of shotgun (buck was recommended) 24+ rounds of handgun, and 78 rounds of rifle.

Extra tip for you: Know how your shotgun patterns at each distance with each choke and each shot size. It is also is a good thing to know if your slugs hit in different spots at 50+ yards with different chokes.

The third stage we shot was El presidente de Ironman. It took 33 rifle, 10 slugs, 15 shot, and 30 pistol rounds. Now remember those are minimums! You started out with the rifle at 75 yards 2 to the body,

then a 100 yard gong, then 2 to the head, then the gong again, then 2 to the body and then the gong. Transition to the pistol and engage 5 targets at 13-18 yards with the same procedure above. Between each string with the rifle and the pistol a reload was required. Now clear the handgun and run about 30 yards to your shotgun.

Equipment list that I used for OPEN class

Rifle –

Ar-15 flat top, JP free float tube, 16 1/2” custom M4 ultra-match chrome lined barrel, Benny Hill Comp, Trijicon TA11, Harris Bi-pod, 3gungear.com Sling, Accuracy Speaks Adjustable Butt Pad, Rock River Trigger, Jpoint on a JP Mount on hand guard,
8 30 Round mags 4 set as double mags with Arredondo connector
2 20 round colt mags
1 30-45 round thermold collapsible
Ammo- Federal .223 55 grain Factory

Pistol –

Burkett SV Open in .38 Super, C-more with 8moa Dot, 125 Grain Zero bullets, Remington Nickel Brass, Winchester Small Rifle Primers, IMR 7625.
5 170 mm SV mags
2 140 mm SV mags

Shot Gun –

Benelli by Grams Engineering with a 10 shot extension, Jpoint with custom Team GE mount, Grams Shell Well, 3gungear.com 8 Shot Shell Holder and double holder for next to the ejection port.
8 Tec-loaders
Remington 7 1/2 shot, Max Dram 1300 FPS Sporting Clays– available at Walmart
Wolf 1 oz. Slugs
PMC reduced recoil 00 buck

Long range rifle –

Remington 700 with HS Precision stock, 10 shot magazines, Leupold (not sure which model), Harris Bi-pod. I was allowed to use the gun and ammo courtesy of Mark Buchanan of 3gungear.com THANKS MARK!

Gear –

Ultimate Ghost Holster
CR Speed Belt
Safariland Mag Pouches.

Comp-Tac Ar-15 Mag Pouches

3gungear.com provided the following gear:

leg double rifle mag pouches

leg tec-loader holder

leg dump pouch

slidelock 2 pack – on shotgun

side saddle 8 pack - on shotgun

511T Royal Robbins Pants and shorts provided by www.staction.com

Knee/Elbow pads

Hatch Gloves

Bushnell 1000 Laser Range Finder

Sherpa Wind Reader (available from RCI)

Ziegler (SP?) Aluminum Hard Cases

Rifle Cleaning Gear from Dewey

Hoppes #9 Benchrest Solvent

Slideglide

SVI Blue lube

Merrel Hiking Boots

Roughly \$11,000 in guns and \$2900 in gear, mags and ammo. Wow, that stuff adds up!

If you can make this match, go! It is an experience of a lifetime.
