

# TRIGGER CONTROL AND APPLICATION

## Trigger Release

Prior to this segment shooters would have gone to great lengths to execute the elements of technique necessary to keep the body and pistol as still as possible in order to produce the greatest accuracy during the release of a shot.

Now, when the final factor is approached, it becomes obvious that in order to release the shot properly, an actual muscular movement must be made, and that unless this deliberate action is performed perfectly; accurately; consistently, for every release; then the impact point of the shot will move accordingly, and additionally compound any other error that the shooter may have in course of normal shooting. Particularly as this trigger movement has to occur when the best possible physical and mental conditions and concentration have been built up by the shooter and directed to one factor: The in focus sight picture and alignment.

As normal humans, and being able to only concentrate on one thing at a time (and a very small period of time at that), the mere fact of having to initiate the shot by a controlled action, immediately puts the shooter into conflict with himself - especially as the two factors, sighting and trigger control, are absolutely essential to produce 10s.

A great deal has been said about this basically insignificant finger movement, but it still is the heart of the performance. Having made this statement, I will say that the shooter's finger - once trained - knows more about applying the necessary pressure, in the right direction, and in the correct manner, than any other part of the body.

But it doesn't have a mind of its own: only a form of **Muscular Memory** and consequently has to be continually 'schooled' in its actions. Firstly to keep it up to perfection and secondly because it has far more complex and important things to do throughout its life-span other than "pull" a trigger, things that don't relate to shooting at all.

It follows then that having learned this physical or muscular action it allows us to do it without having to think about it - actions without conscious thought - provided always that we have stored the correct information initially during the learning processes. This then gives us the basis of being able to do two things at once and will end the conflict within ourselves. The essential necessary additional SKILL is that of an exacting co-ordination between the two factors of sighting and trigger control.

## The Trigger Itself

On most modern target pistols the engagement and applied pressure on the sear is fully adjustable in order that the 'trigger weight' as required in the rules for the appropriate courses of fire, may be met.

Triggers are not all the same. Some have the normal, reasonably single stage crisp let off, others are of the two stage variety, requiring approximately 800gms to release the first stage, and a final 200gms for the second and actual release or for Centre Fire approximately 1000gms first stage and 360gms second stage. There is also a trigger mechanism with a 'roll on' action which, very simply, means that it has been designed to help the shooter to attain an unconscious let-off, in other words, the shooter will not know when the release is going to happen. Multi stage or lever triggers are necessary when very light trigger pressures are required as in Free Pistol. And then there is the latest form of trigger which relates to modern technology: The electronic trigger with battery power and micro switch release. No matter what form the trigger and mechanisms take, you, the shooter, will decide which is **the** one for you.

There is a certain criteria which can be followed when selecting triggers.

- (a) A sharp, clean break with slight gradual movement.
- (b) No drag, with its related gritty feeling.
- (c) A feeling of light, controllable let off, no matter the pressure required for release.
- (d) Maintain consistency of required release pressure and at the same time have ease of adjustment.
- (e) Have the ability to be worked on easily.
- (f) Positioned so that the trigger finger can reach it with good placement and without touching any part of the frame or grip. (Preferably adjustable positions of trigger).
- (g) Meet the requirements of the Rule Book.

## Trigger Control

The correct technique of this important action has definite rules and they **MUST** be obeyed if shooters are to achieve the standards of performance they are looking for. The rules for trigger control can be categorised in three headings:

1. WHERE - to apply pressure to the trigger.
2. HOW - to apply pressure.
3. WHEN - to apply trigger pressure.

I am going to take each rule in turn, give the reasons for it, and how to apply it.

**WHERE:** As we all know, any lateral or vertical movement on the trigger when the barrel is held in its most accurate and final position due to a good sight alignment and focus, will disturb these factors quite considerably. Consequently, it is absolutely essential that the pressure applied to the trigger ***must be directly to the rear and in a straight line with the barrel***. To be able to do this correctly and naturally for every shot; the trigger finger ***must*** be positioned accurately on the trigger and the shooter must have a positive way of doing this simple thing. The trigger finger itself pivots from the second knuckle, and there for the part of the finger that has the least 'arching' is the centre of the first pad. This position will give you the best chance for a rearward pressure in a straight line. Also it is advisable that the first pad of your trigger finger be at 90 degrees to the barrel when the actual release has occurred. Additionally, because the third pad of the finger is roughly parallel with the frame or grip of the pistol, there should be no chance of it touching and causing a secondary movement.

Prove this to yourself by holding the pistol hand just in front of your body at waist height, and curl it as if you're holding a pistol, complete with trigger finger placement. Now put the forefinger of the other hand against the inside of the large knuckle of the pistol hand. Pull the trigger! And again! Feel the movement? ***This must not be transmitted to any part of the pistol at any time***. Don't be too proud of your expensive pistol and leave wood or metal where it can interfere with the free positioning of the trigger finger in the grip and on the trigger. Contact costs accuracy!

The other fingers of the hand, when applying grip, are related to the pressure application of the trigger finger and you must remember that grip pressure of the second finger must not be too heavy or the sympathy it has with the trigger finger will make it 'seize' and it will be difficult to produce a release of any type.

Just about now I can hear some of you thinking out loud "It's okay for you mate, but what are we of the small hand variety to do about it?"

Well I would like to put your mind at ease. YOU ARE NOT ALONE, I would probably have one of the smallest hands in the business and it took me a long time before I was able to find the right pistols that, with a lot of work done on them, allowed me to do all the above. It is not impossible.

Let me tell you about something I discovered very early in my shooting learning. It is a way to condition your mind and body into achieving that desirable finger positioning. No it is not magic, it is called muscular sensitising on the trigger finger placement with the help of mental rehearsal. Try it!

Establish the exact position where the trigger finger should make contact with the trigger. Now, gently 'rub' this contact part of the finger on, say, the edge of a matchbox, or edge of the gun box or table. Close your eyes while you're doing this, and make a mental picture of the action feeling the sensation of it at the same time. Stop the movement and open your eyes. Now to check it, close your eyes and make a mental picture of the trigger finger complete with the mental rehearsal of the rubbing action. If done properly, you should feel a muscular sensation exactly where you made the finger contact in the first place.

Before firing a shot or series, all you have to do is to make a mental picture of the trigger finger and mentally rehearse the positioning routine. I can assure you, unless the finger is positioned exactly on the right spot, you will feel a sense of discomfort which cannot be eased until the sensitised part of the pad is actually touching the trigger in the right place. I hope this will help you as it did myself. Repeat until successful.

**HOW:** I know of an old saying “The speed of the hand will never deceive the eye” and in pistol shooting I found that to be very true. If you try for a perfectly still and absolutely correctly placed sight alignment and picture the tendency will be for you, as soon as you see it, to release the trigger. But we all know it isn't like that in practice, is it? We should really substitute the word ‘snatch’ for ‘release’ because that is what really happens if we ‘hold on’ for the perfect immovable sights/target relationship.

The rule of ‘how’, dictates that, with the sight alignment and picture moving naturally in the shooter's area of wobble or hold, a **constantly increasing and positive rearward pressure** should be applied to the trigger, and once this pressure has been initiated, it **must not** under normal circumstances be interrupted.

For all forms of precision shooting, pressure should start as the pistol and sights level-off within the aiming area, after the vertical movement and as it relates to the breathing rhythm. For timed shooting, pressure should start as the pistol and sights slow down and glide into the centre of the aiming area after the initial fast lift.

**WHEN:** The release of a shot or series requires a certain number of specific factors to be performed in a given sequence, each one taking an amount of time to process. Several of them have limits of time after which their part played in the overall performance becomes suspect and deteriorates. All these factors come under the heading of primary rhythm. Trigger release is included in this rhythm, and timed to coincide with the peaks of concentration, and ability to hold, the breathing rhythm, and the sighting procedures. As an example, for precision shooting, the optimum conditions fall between 5 and 10 seconds. For rapid/timed shooting the limits are between 0.5 to 1.5 seconds. Where, How and When is all it takes.

I would like now to deal with some of the faults in trigger control. We all know about them but very few tend to acknowledge them. These are not in any particular order.

1. **Loss of co-ordination:** Helping the recoil and going with it. Lack of follow-through.
2. **Snatching:** Too rapid build up of finger pressure when it is shown that all other factors are correct, i.e. when momentarily perfect sight alignment is seen. Because of the time element, i.e. Rapid Fire, Standard Pistol, rapid stage of Sports Pistol/Centre Fire.
3. **Pushing:** Too little finger pad on the trigger, causing a force more of a rotation rather than straight rearward movement.
4. **Pulling:** As for pushing, but with too much finger on the trigger.
5. **Holding on too long:** The shooter, in trying desperately for a perfect stillness and sight alignment, will induce excesses of grip; muscular tension; breathing tension; body vibrations and pistol tremor. This is a cumulative error, usually caused by fear - the fear of releasing a bad shot. Can't 'pull' the trigger; Its weight hasn't altered, the trigger finger hasn't got weaker - It's all in the mind.
6. **Lack of Primary Rhythm:** Releases when some or all of the other control factors are incorrect or deteriorating.
7. **Tension:** Either too low, producing negative responses, or, too high, causing all the errors in the book.
8. **Negative Training:** Surprisingly enough, this applies to a large number of shooters who, instead of putting time into developing the individual learning of all logical skills turn up on club day or night and shoot as many shots as they can and do nothing but continually teach themselves all the bad habits.

I can hear you say “Okay, I want to improve!” Well I'll do my bit. Here are a few practices to improve trigger control.

In this area we can relate to muscular memory, and if we can introduce certain physical and mental co-ordinated practices to make the finger relearn its job, then we can go a long way in eliminating many of the errors:

- (a) Place a blank card on the floor a few feet away from you. Now after gripping the pistol properly and executing the correct trigger finger placement, sight the pistol in the centre of the card. Release the trigger (don't forget to use a snap cap) and note the movement of the foresight. Continue until no movement of the foresight is seen at all. Practice until you perfect the action. When live firing at the range make a mental recall of this practice and relate it to the actual release.
- (b) Quadrant Timing: Stand with a square-on stance, cocked pistol (unloaded of course and snap cap), take the correct grip. With the arm and pistol vertical, place the right elbow in the cup of the left hand (the reverse if left handed). Move the pistol and arm from right to left in a quadrant, smoothly and evenly, taking about five seconds or so to do. Repeat, but this time release the trigger, using usual techniques. When a smooth even and 'unconscious' let-off can be achieved in this timing, continue by reducing the time taken for a perfect let-off. Eventually, an instantaneous, smooth, progressive and involuntary trigger release is obtained as soon as the quadrant movement is initiated.
- (c) Mental Rehearsal: This can be employed quite easily and, like all mental approaches, is not something you do but something you don't do. Make a simple mental picture or image - without thought - of the correct finger placement of all the fingers of the pistol controlling hand. Learn to sense the correct positions and pressures. Vividly imagine holding the pistol and releasing the trigger (perfectly of course) at any time during the day (more so while you wait to go to the line to start your comp) and during your prep time. Eventually this imagination can become reality.
- (d) Range Practice: Hang a target at the range backwards for precision fire. The eyes will automatically place the sight alignment in the centre of a mass. There will be no distraction from an aiming mark; shots will string vertically because, whilst the sights will be able to be aligned laterally correct on the target, the vertical placement will not be because of the lack of an aiming mark and the fact that the bottom half of the card is hidden by the grip and hand. Any shots out of the vertical stringing will be caused by faulty trigger release.

If these exercises are only done once or twice and then forgotten because the outcome is thought to be perfection, the performance goes back to square one.

The answer is obvious and will prove the point: remember what muscular memory is all about. The exercises should be practised until they become practice: customary action: systematic exercise: to do frequently or habitually.

Only then you, the shooter will learn the experience of a subconscious release.

Keep up the work and good luck in your shooting.

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