

The term “Marksmanship Fundamentals” should be familiar to anyone with formal firearms training and is well documented in many books and videos on the topic of marksmanship.

The actual number of fundamentals varies based on what firearms religion you subscribe to (anywhere from four to eight that I’ve seen) and what does and what does not constitute a “fundamental” has been the topic of many a lively discussion amongst my peer group. I consider any process that cannot be broken down into sub-processes or components and is necessary for the accurate delivery of a projectile or multiple projectiles to a target, to be a marksmanship fundamental. My goal for this article is to present a brief review of each

fundamental for familiarity’s sake; but more importantly, I want to discuss when we can take shortcuts with the fundamentals, determine when each one is necessary or not, and improve the overall efficiency of the firing process to reduce the time required to engage or increase the number of projectiles delivered to the target in the same time period.

DEFINITION OF FUNDAMENTALS

Sight Alignment: This is the relationship between the front sight post, rear sight ap-

erture / notch (for iron sights) or the optic’s reticle and the aiming eye. This relationship is critical to aiming and must remain consistent from shot to shot. Improper sight alignment when using an optic is commonly referred to as “scope shadow” and occurs when the shooting eye is looking through the tube at an angle. For dot optics the dot must be in the center of the tube or window. Errors in sight alignment result in angular dispersion, which means the distance from the point of aim to the impact will increase as the range to the target increases. If

MARKSMANSHIP FUNDAMENTALS FOR RIFLE AND PISTOL

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sight alignment is performed correctly only parallel dispersion will occur, which relates only to the distance the weapon physically moves or to errors in sight picture. This will typically be much smaller than an angular error.

Sight Picture:

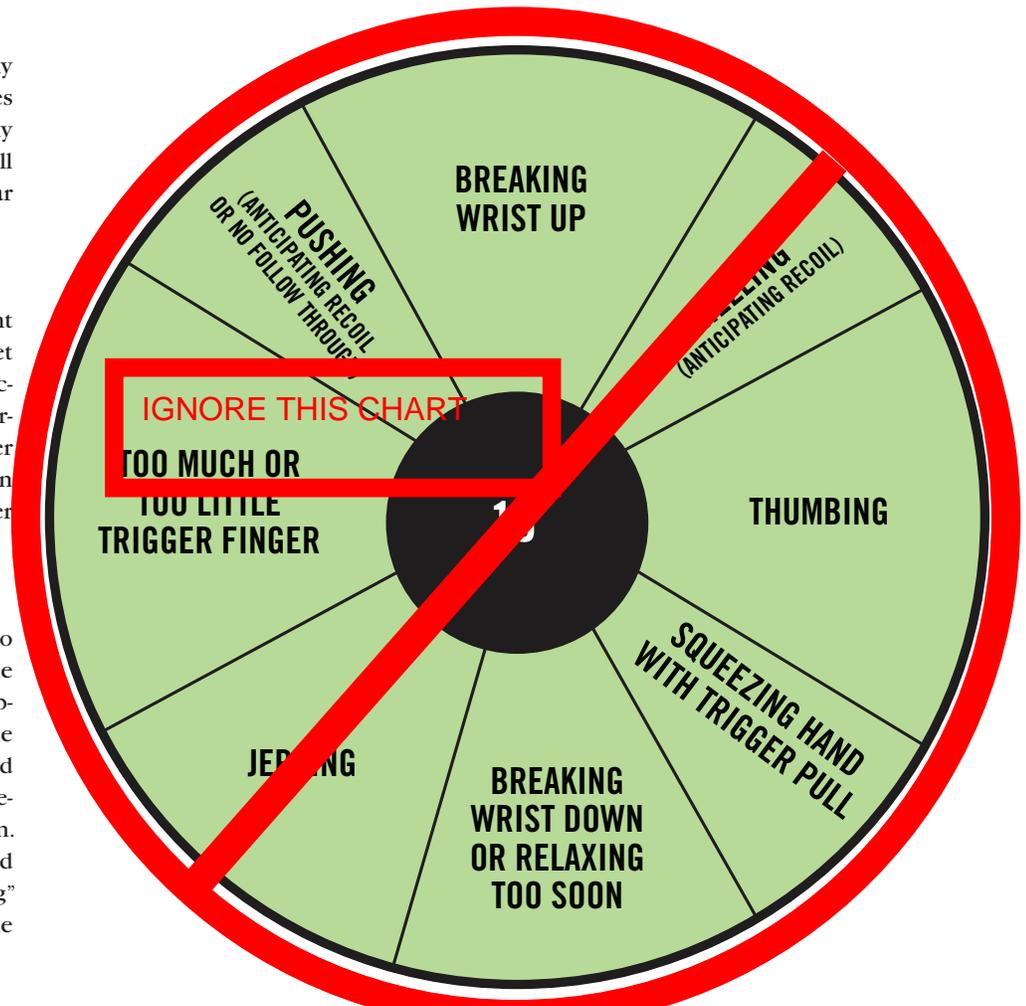
The placement of the tip of the front sight post (or reticle) in relation to the target while maintaining sight alignment. Sight Picture is usually applied in relation to the target or threat and when referring to Center of Mass. It is the center of the largest portion of the target that is available to the shooter to give the highest probability of a hit.

Trigger Control:

The goal of proper trigger control is to smoothly manipulate the trigger to the rear until the shot breaks, without disturbing sight alignment or the sight picture. The press should be biomechanically aligned with the forearm and not place any side-to-side pressure on the trigger or weapon. Pressure should be continuously applied through the breaking of the shot as “flinging” the finger off the trigger can have the same detrimental effects as jerking it to the rear.

Stance:

There are many different shooting stances and variations thereof, however, the most commonly referenced are: Standing, Kneeling and Prone. A separate article could be written about each stance, its proper application, performance and variations. I will just cover a few basic concepts and considerations that are common to all. The stance must provide a stable shooting platform to minimize the amount of perceived movement in the firearm, aid in recoil control and allow the shooter to perform the other marksmanship fundamentals to ensure an accurate shot. I like to describe various stances using a ground-up approach. I look at where the feet are positioned, knees, hips and shoulders in relation to the rest of the stance and the target, elbows and hands (and anything else that may be contacting the weapon: face, shoulder pocket, barricade, etc). For combat, tactical or action competition shooting a balance must be struck between the stability a stance provides and the mobility and field of view the shooter needs for survivability or efficiency of putting rounds on target.



HANDGUN ACCURACY ISSUE CHART, FOR A RIGHT HANDED SHOOTER

(A LEFT HANDED SHOOTER CAN USE A FLIPPED IMAGE OF THIS CHART TO DIAGNOSE ACCURACY ISSUES.)
THIS CHART IS A GENERAL REFERENCE AND DOES NOT INCLUDE SHOOTER'S OTHER ISSUES SUCH AS VISION

THE GOAL OF PROPER TRIGGER CONTROL IS TO SMOOTHLY MANIPULATE THE TRIGGER TO THE REAR UNTIL THE SHOT BREAKS, WITHOUT DISTURBING SIGHT ALIGNMENT OR THE SIGHT PICTURE.

Grip:

How the hands are placed on the firearm. This may be the only interface between the shooter and weapon (pistols in particular). The right grip should support the weapon, aid in sight alignment, place the firing hand in a position to naturally manipulate the trigger straight to the rear, effectively manipulate safety mechanisms, activate lights and lasers, assist in recoil management and support the chosen stance. The hands provide an enormous amount of tactile feedback to the shooter and their proper placement and application of the grip can have a huge impact on speed and accuracy.

Breathing:

The movement of the chest cavity can have an adverse effect on stability depending on which stance is being used. Typically, when firing a rifle from the prone or kneeling positions, the shot is fired during the “natural respiratory pause,” a point at the bottom of the breathing cycle where almost all of the air in the shooter’s lungs is exhaled. This provides an easy reference point for shot to shot consistency and reduces the movement of the shoulder. However, the eyes are the most sensitive organ in the body to oxygen levels in the bloodstream. If the exhale is held too long vision will suffer and the



THE BEST, MOST ACCURATE RESULTS WILL BE ACHIEVED WHEN ALL OF THE FUNDAMENTALS ARE APPLIED AS CORRECTLY AS POSSIBLE.

refresh rate of the chemical transmitters in the eyes can slow to the point that the sights can move without the shooter noticing. The shooter has about 6-8 seconds before vision starts to degrade, depending on the individual. This time can be extended by using the natural respiratory pause at the top of the breathing cycle. This may not be ideal for the prone position, due to the instability it causes in the position. However, it works well when standing. Inflating the chest cavity can also aid in supporting the weight of the arms and weapon. Unfortunately, there is rarely the luxury of stopping, setting a perfect breathing pattern and performing a breath hold in a combat situation. The best a shooter may be able to do is be aware of their breathing and they may actually have to force themselves to breathe between shots or during movement. Being able to control breathing in this type of situation can go a long way to controlling the shooter's mental state as well, by reducing heart rate and giving the psyche a feeling of control over the situation.

Follow Through:

Follow through is generally described as

the continued application of all marksmanship fundamentals during and after the shot. Maintaining sight alignment as the weapon settles back to the original sight picture also allows for more rapid follow-up shots. No matter how instantaneous it may seem, there is still a period of time during which the bullet is travelling down the length of the barrel after ignition. Any disturbance in the sights or position of the weapon can result in thrown shots. Although most thrown shots are due to disturbing the weapon just prior to the break of the trigger (anticipation) it is still possible to change the point of impact due to improper follow through during the firing process.

“Cheating” the Fundamentals:

Ideally, we want to apply all of the above marksmanship fundamentals perfectly every single shot in order to guarantee the most accurate bullet placement. However, given time or situational constraints we may not have the ability or opportunity to achieve that level of perfection and may have to settle for the option that gives acceptable effects in the appropriate amount of time. Now let's look at how we can cheat

the system and determine when we can sacrifice certain fundamentals and which ones are essential given the circumstances.

Proximity to the Target/Threat:

The saying, “proximity negates skill” (where a monkey with a crowbar in an elevator could best even the most highly trained individual), applies here as well. The closer the threat is the fewer fundamentals have to be applied to get effective hits (8 inch circle for the purposes of this exercise). Inside of 10 yards sight alignment becomes far more forgiving. With most pistols the front sight can be run to the extremes of the rear sight notch and still hold an 8 inch group at that distance. Sight picture can also be sacrificed to an extent, as long as the front sight is somewhere within the circle, effective hits can be achieved. Trigger control becomes less critical as the distance to the threat is reduced as well. Watch any slow motion video of a professional shooter engaging close targets rapidly and the trigger manipulation hardly resembles the slow, steady, press to the rear discussed above and yet they still manage to obtain a high level of accuracy. Breath control has an insignificant effect

as well, unless you've stopped breathing completely for some reason. Grip (for pistol) and Stance (for rifle) become the fundamental techniques that counter errors in Sight Alignment, Sight Picture, and Trigger Control. A good grip on the pistol will naturally index and align the sights to allow sufficient accuracy and proper biomechanical tension will aid in recoil control, allow the trigger to be manipulated quickly without throwing shots outside of the 8 inch target zone, and provide for automatic Follow-Through as the weapon will naturally settle to point of aim between shots. Stance and natural body alignment/natural point of aim assist with establishing sufficient Sight Picture at close distances as well as aiding recoil control and index. Most of the control for the weapon is coming from the upper body at this point, so positioning of the shoulders, arms, head, and hands to support the weapon becomes the more important component of stance. I routinely demonstrate this by standing on one foot and engaging targets, sacrificing the stability of my lower half is balanced by ensuring I have good control over my weapon through proper use of the upper body.

As distance to the threat increases or target size decreases, the number of fundamentals that have to be applied to achieve effective hits increases to ensure we have sufficient stability and control of the weapon. Time is almost always directly linked to distance as well, so as distance increases the time allotted to apply the fundamentals also increases. This would allow the opportunity to find a suitable piece of ground or cover, apply the appropriate stance, align the sights on the target, check grip, control breathing and apply proper trigger control and follow-through.

Fundamental Balance:

As you can see from the above proximity example, depending on the situation, some fundamentals will override others in importance during the firing process. The key is to determine which fundamental will have the most effect given the circumstances. Generally speaking the below guidelines apply (keep in mind there are differences in application between rifle and pistol shooting):

1. Grip, Stance and Breathing can be sacrificed as long as the shooter applies good Sight Alignment, Sight Picture and Trigger

Control. Realize that follow-up shots will be slower and recoil control will be poor when sacrificing Grip and Stance.

2. Sight Alignment can be sacrificed at close distances or on large targets and visual verification of sight alignment can be sacrificed if a proper index is established through Grip and Stance. An index is established over time and repetition and is unique to each shooter/weapon combination.

3. Trigger Control can be sacrificed if proper Grip and Stance are applied. In my opinion, far too much emphasis is placed on trigger control for most combative-type carbine and pistol work. Except in the most extreme examples it is unlikely that the force generated by the trigger finger is sufficient to move a 4.5lb pistol or 10lb carbine appreciably as long as proper Grip and Stance are utilized. Anticipation of the shot and resulting recoil causes muscular contractions in the hand and upper body resulting in errors that are commonly misdiagnosed as poor trigger control; but that is a topic for another day.

CONCLUSION

There are a number of factors, known as the Marksmanship Fundamentals, which the shooter can influence no matter what weapon platform is in use. The best, most accurate results will be achieved when all of the fundamentals are applied as correctly as possible. However, due to time constraints, proximity of the threat or other environmental conditions that prevent perfect application of the fundamentals it is essential to understand what can be given up, yet still provide acceptable results given the situation. Hopefully this article helped shed some light on the topic and dispel some common misconceptions concerning the application of techniques fundamental to hitting the target or eliminating the threat. ✓

BIO

Ken [REDACTED] has over 18 years of military and security contracting experience and possesses firearms instructor certifications from multiple agencies. He has served with Marine reconnaissance units and in his (very limited) free time serves as the president of Shibumi Tactical LLC (www.shibumitactical.blogspot.com).

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