

THE UNITED STATES ARMY MARKSMANSHIP UNIT



BASIC PISTOL MARKSMANSHIP GUIDE

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FOREWORD

This material is directed to the beginning and average shooter and it can be used to advantage as a guide to good shooting principles.

Every top shooter on the U.S. Army Pistol Squad has contributed to this guide. The principles outlined herein are tried and proved fundamentals of which all outstanding shooters are aware, but which few shooters apply at all times. The training techniques outlined in this guide are the consensus of some of the best competitive pistol shooters in history.

Suggestions for improvement are solicited. Address your inquiries to: Commander, U.S. Army Marksmanship Unit, Fort Benning, Georgia 31905.



STANLEY J. PARMENTIER
Colonel, Infantry
Commanding

I. FUNDAMENTALS OF PISTOL MARKSMANSHIP

The fundamentals of pistol marksmanship embrace all of those physical factors essential to the firing of an accurate shot. Accuracy, in this sense, assumes that the weapon is zeroed, that a high degree of inherent accuracy exists in both the weapon and the ammunition, and that the firing is taking place under ideal conditions.

Essentially, accurate shooting with a pistol requires no elements other than those described in the following sentence: ALIGN THE SIGHTS PROPERLY ON THAT PART OF THE TARGET REQUIRED FOR YOUR GROUP TO CENTER IN THE TARGET AREA AND CAUSE THE HAMMER TO FALL WITHOUT DISTURBING THAT ALIGNMENT. All elements of pistol shooting such as position, grip, sight alignment, breath control, trigger control, physical condition, and psychology of shooting, when perfected, simply enables the shooter to perform the action described in the above key sentence.

In order for a shot to be accurate, it is first necessary to make sure that the pistol will be held as motionless as it is possible to do so during the time that the shot is being fired.

To obtain a minimum arc of movement the shooter must give the pistol the greatest stability possible. Proper stance or posture gives the shooter balance, stability and comfort while shooting. Proper body position points the pistol directly toward the target with no tendency to drift or move to either side. Likewise, the vertical movement of the pistol is confined to the aiming area. Breathing is accompanied by the rhythmic movement of the chest, and in order to keep the pistol as immobile as possible, the shooter must hold his breath for the length of time required to deliver an accurate shot. To obtain natural sight alignment, it is necessary for the shooter to grip the pistol in a manner which guarantees that he is holding the pistol firmly and that trigger pressure is applied straight to the rear. The delicate balance of sight alignment and minimum arc of movement can be easily disturbed if the trigger is activated in manner which causes excess movement. However, since the shooter cannot achieve complete immobility when assuming the stance and position, the trigger has to be pressed during some movement of the pistol. In order to deliver an accurate shot within his ability to hold, the shooter must not only press the trigger evenly, but he must do so with correct sight alignment. The size of the shot group will, therefore, not exceed the dimensions of the arc of movement, provided the shot breaks as a surprise and no reflex action of muscles disturbs the delivery of the shot.

To help the shooter acquire the necessary knowledge to master all the factors that control his shooting, we shall analyze in detail each element of accurate shooting - stance, position, grip, holding the breath, sight alignment, and control of the trigger. Also included will be certain methods of training that will accelerate the shooter's development into a champion pistol shot. This status is achieved only after the shooter has mastered the technique of consistently controlling the application of fundamentals.

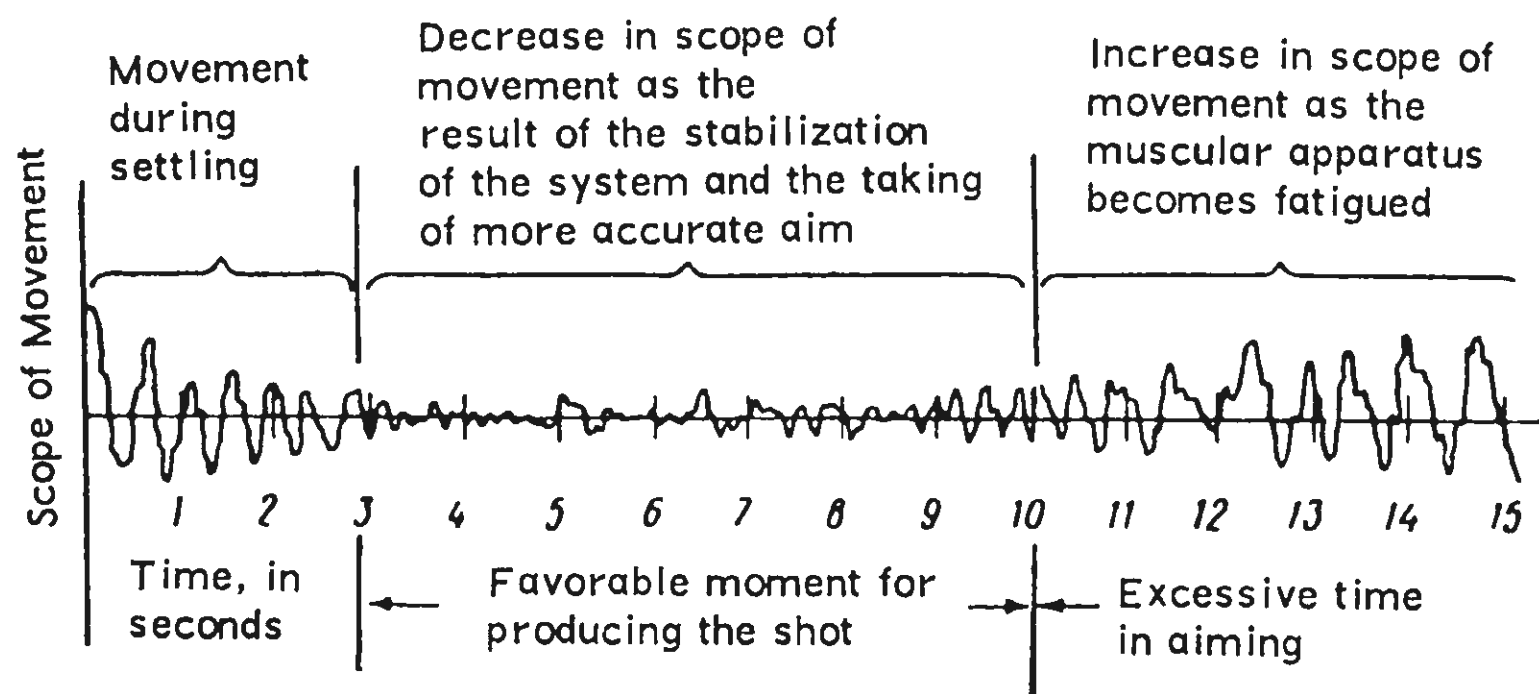


Figure 1-1. Minimum Arc of Movement.

A. BODY STANCE AND POSITION

We are all constructed differently and have different natural posture or stance. To find your natural stance, look for a comfortable posture or stance with no strain. The legs should be straight, but not tensed. Allow the knee joints to fall into semi-locked position, but still be relaxed. The thigh muscles should be relaxed. If you are tense anywhere, it is a sign of strain. Strain causes rapid muscular fatigue.

To check your position, look at the target by turning your head and eyes only and raise the pistol to the target level. Then, close your eyes, raise your pistol slightly above the target and allow it to settle relaxed and naturally to the point of aim. If it settles in the center of the target, you have your natural position. If it falls to one side it is in error. Move your rear foot in the direction of the error, rotating the body axis from the feet to the shoulder as a unit. Several tests such as this one will readily show you how to assume the proper position in relation to the target.



Figure 1-2. Stance-Side View.



Figure 1-3. Stance-Front View.



Figure 1-4. Stance-Rear View.

B. GRIP:

The most important feature of grip is uniformity. It should be the same with each weapon and each time you fire a shot. It must be firm and yet not interfere with the independent action of the trigger finger. The gun must be placed so that it does not shift in the hand when a shot is fired.

Pick up the pistol by the barrel in your free hand and place it in the shooting hand so that the backstrap bisects the base of the thumb and the palm of your hand. The pistol should be made a prolongation of your forearm. This is the basic guide to proper grip. However, if the front sight is not naturally centered in the rear sight notch, further adjustment of the grip is necessary.

The gripping is done with the base of the thumb and three lower fingers of the hand. The top of these three should be snug against the frame of the gun in the curve of the trigger guard. Take care that you concentrate the pressure in the top gripping fingers. The pressure of the grip must be directed straight to the rear. If the little finger bears too much of the pressure, your shots may be pulled below your point of aim as the hammer falls.

Shaped, molded or tailored custom grips are required to fit perfectly. Fitted grips are primarily used to help the shooter who can't consistently duplicate the proper grip when using standard factory grips. The individual shooter must first decide what features and characteristics of a shaped grip suit his hand. Stocks can be made to fit exactly, but it is a difficult job. Only an experienced shooter is capable of knowing what he actually needs in a custom grip, because only he knows what his proper grip looks and feels like.

Much has been written about the amount of pressure to use in the grip. The more pressure you use, the tighter your control will be, up to the point where pressure interferes with your ability to hold without a tremble or free action of the trigger finger. Try it. Your utmost pressure will freeze your trigger finger and you will be unable to hold the weapon still.

The thumb should lie relaxed alongside the slide without exerting any pressure against the gun. It should never be lowered to the gripping fingers. A relaxed thumb is another indication of a relaxed shooter. Do not touch the frame of the gun with any part of the trigger finger. The first joint of the finger should be used to exert pressure straight to the rear.

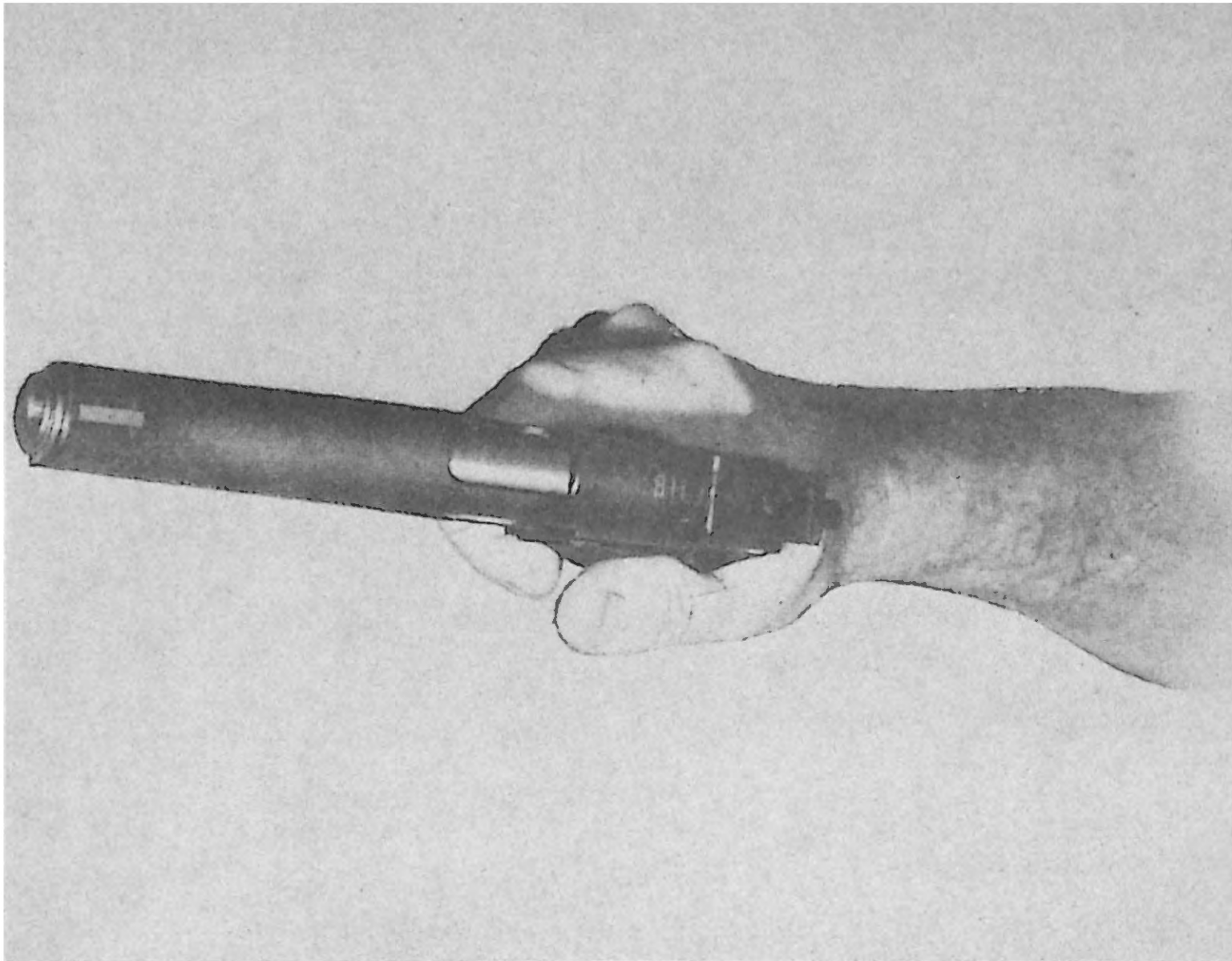


Figure 1-5. Getting the Grip-Top View.

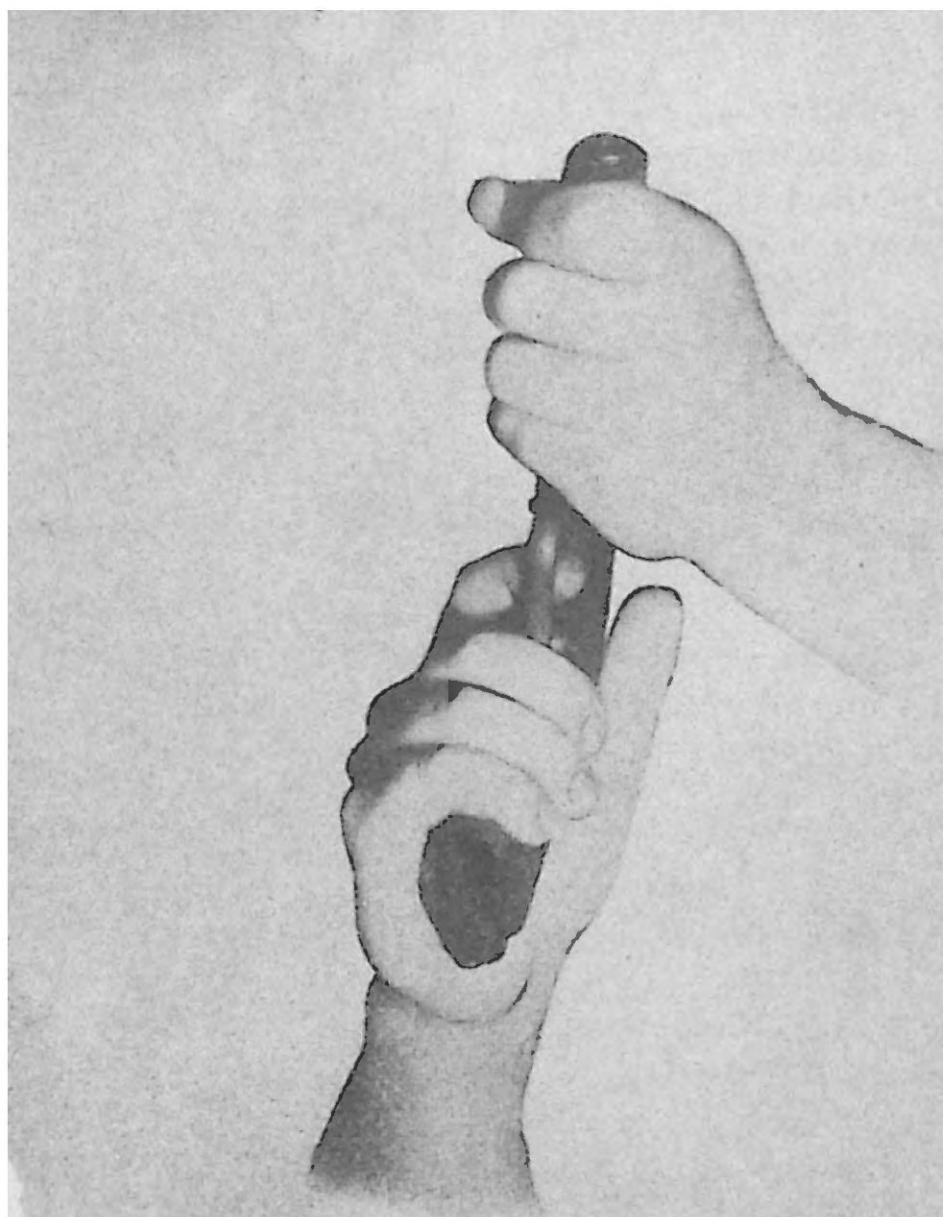


Figure 1-6. Getting the Grip-Under View.

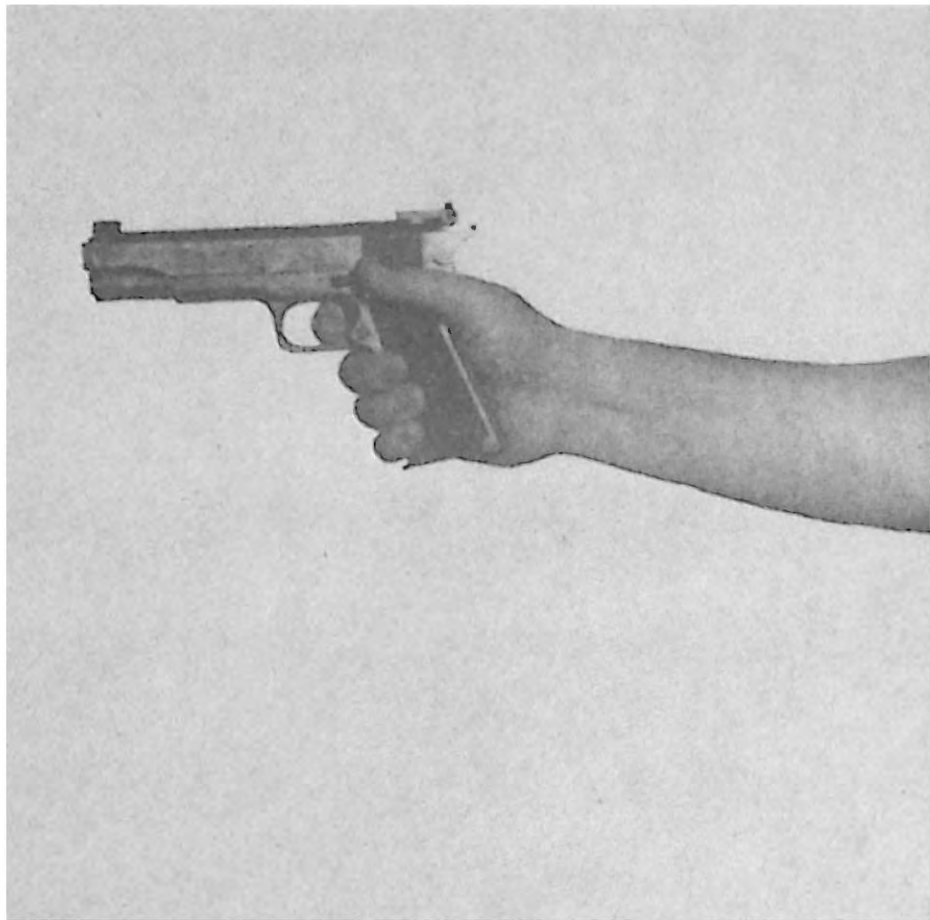


Figure 1-7. Left Side View.

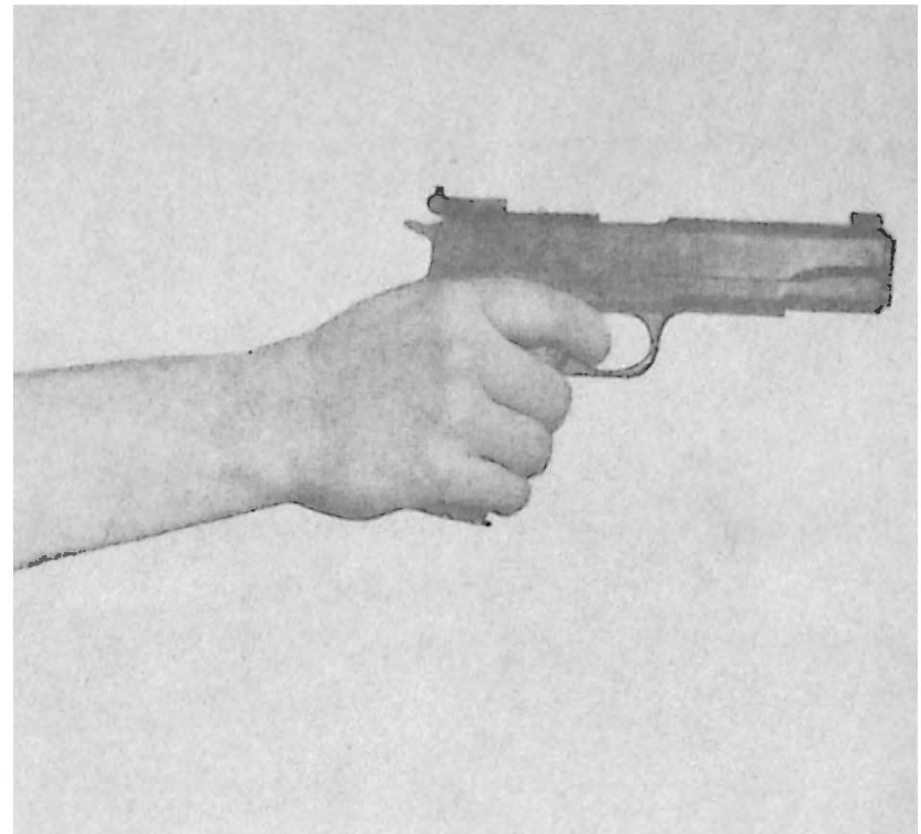


Figure 1-8. Right Side View.

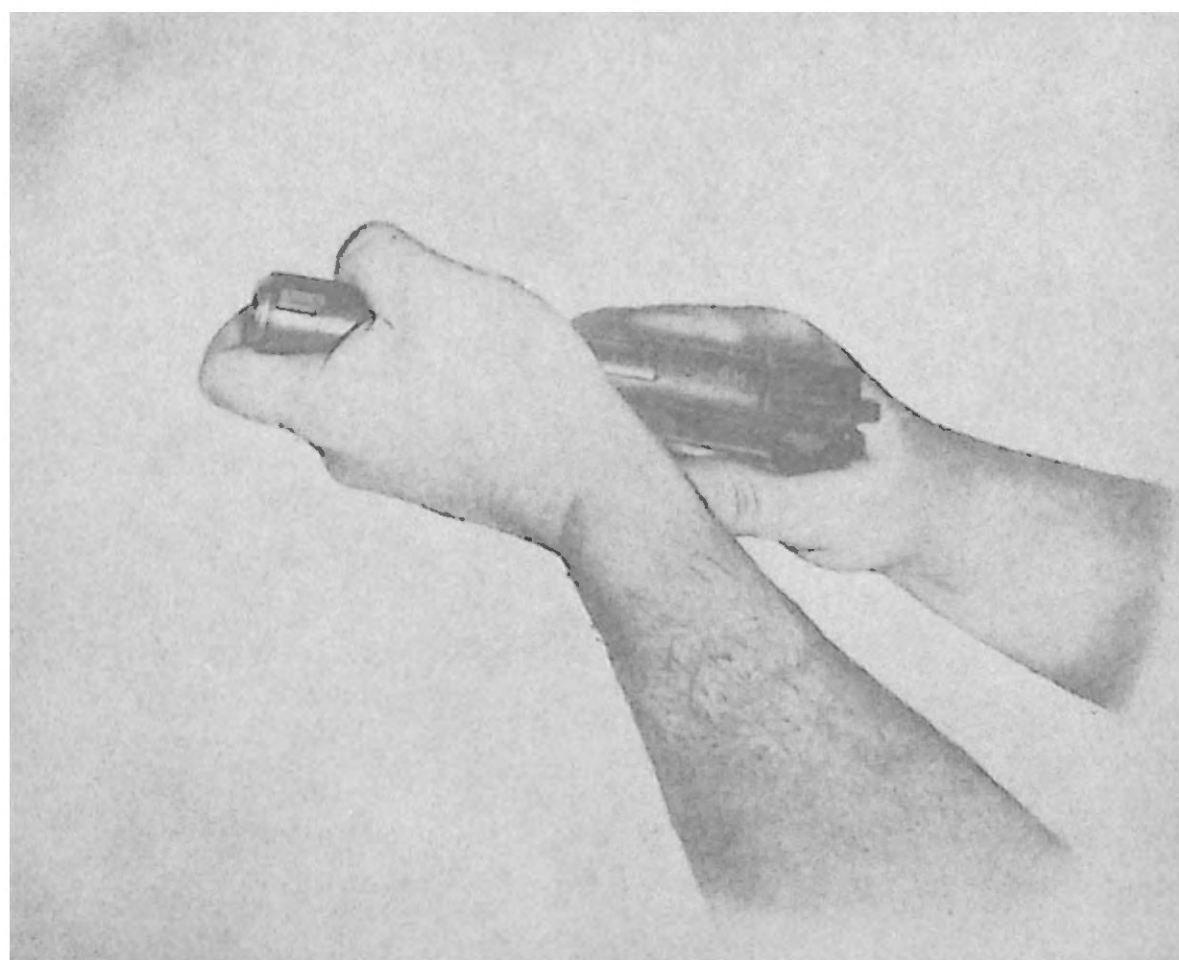


Figure 1-9. The Grip-Top View.

Powdered rosin dusted on the hand can help to maintain a solid, controlling grip but it is not absolutely necessary. Normally, a strong hand and the checkering and stippling on the stocks and metal surfaces is sufficient. In hot weather when the hand may perspire or a hand that becomes wet in the rain may cause slippage. Powdered rosin or a like substance, that will temporarily dry the skin of the palm and fingers, is then justified.

In the final analysis, there is only one correct grip for you. It is one that is firm; affords the individual shooter the maximum degree of control over maintaining sight alignment and allows positive, straight to the rear pressure on the trigger without disturbing the sight alignment.

C. BREATH CONTROL:

The correct method of breathing is an essential part of the shooter's system of control. Most pistol shooters know less about the proper method of breath control than of any of the other fundamentals.

The object of proper breath control is to enable the pistol shooter to hold his breath with a comfortable feeling long enough to fire one shot slow fire; five shots in twenty seconds timed fire; or five shots in ten seconds rapid fire without loss of the ability to hold still or concentrate on sight alignment.

1. To be Effective, Breath Control Must be Employed Systematically and Uniformly: The ability to concentrate and maintain rhythm is aided.

a. Promote a steady hold. It is generally known that one must not breathe during aiming. Breathing is accompanied by the rhythmical movement of the chest, abdomen, and the shoulders. This causes the pistol to move about excessively, making it almost impossible to produce an accurate shot. Therefore, one must not simultaneously breathe and try to fire a shot, but must endeavor to hold the breath for a short period of time.

b. The physiological processes involved in breathing. The shooter, however, must not view the breathing process solely from the movement of the chest and the gun. He must not forget that the process of breathing, which consists of a combination of processes which occur constantly in the human body, determine in general the condition of the human being. Therefore, proper breathing is of great importance during shooting exercises which last several hours. Incorrect breathing technique has an adverse effect upon shooting, especially if the concentration is disturbed by sensing of the need to breathe.

(1) During the process of breathing, there is an alternating increase and decrease in the volume of the chest, as a result the person inhales and exhales. A person inhales when the dimensions of the chest increase. Once inside the lungs, the air provides oxygen to the blood and in turn it absorbs carbon dioxide and aqueous vapors. Exhalation occurs when all the muscles relax, the diaphragm presses upward, and, under the action of the weight of the chest and the elasticity of the lungs, air is forced out of the body. Exhaling does not require muscular effort; it occurs as the result of the resiliency of the ribs and the muscular tissues and the elasticity of the lungs.

(2) When breathing calmly a person produces an average of 12-13 respiratory cycles a minute. Consequently, one respiratory cycle lasts 4-5 seconds. If one traces the respiratory cycle, it is not difficult to note that the strained position of inhalation is replaced very quickly by exhalation. The very next inhalation begins after a respiratory pause of 2 to 3 seconds, (Figure 1-10) during which time the carbon dioxide accumulates in the lungs. The duration of the respiratory pause is determined by the ratio of oxygen and carbon dioxide in the air remaining in the lungs.

(3) The respiratory pause and the problems of the ventilation of the lungs are of great importance to the shooter. It is obvious that during aiming and applying pressure on the trigger, the breath must be held only after the shooter has exhaled, timing it so that the breath is held at the moment of natural respiratory pause. During that time the muscles are not strained and are in a relaxed state.

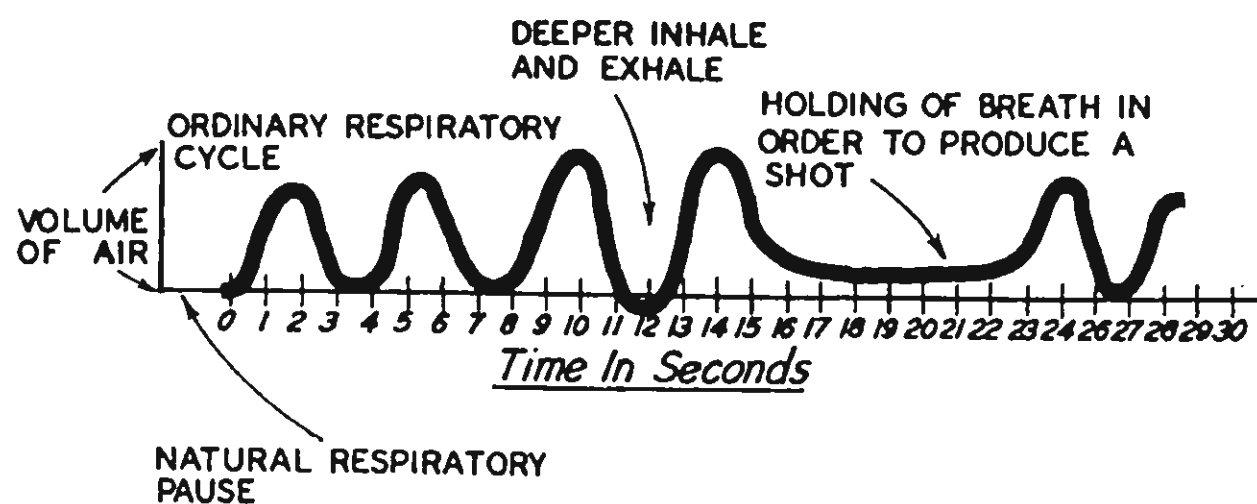


Figure 1-10. The Manner in Which a Person Holds His Breath in Order to Produce a Shot.

c. A person can prolong by several seconds this respiratory pause, that is, hold his breath comfortably for 15-20 seconds, without any special labor and without experiencing unpleasant sensations. This time is more than adequate to produce a shot or shots. Experienced shooters usually take a deep breath before firing and then, exhaling slowly, hold their breath gradually, relax and concentrate their entire attention upon sight alignment and the smooth application of pressure on the trigger (Figure 1-16).

D. SIGHT ALIGNMENT AND SIGHT PICTURE:

Sight alignment is the relationship of the front and rear sights to each other. The front sight is centered in the rear sight vertically and horizontally. Sight picture is the holding of this correct sight alignment on the bullseye in your aiming area. Proper alignment of the front and rear sights is the most important fundamental of pistol marksmanship.

There are two popular places to hold, 6 o'clock and center hold. Those who shoot 6 o'clock say this gives them a clear definition of the sights, since they have black sights positioned on a white target. It also gives them a more definite aiming point. Those who use center hold say that when aiming at 6 o'clock they have a tendency to "pick 'em off" but when they aim center they have a convenient aiming area in the black. In addition they feel that since they have black sights on a black target they must focus on the sights to differentiate between the sights and the target.

It is necessary to be acutely aware of the relationship of the rear sight to the clearly defined front sight. Normal vision is such that the rear sight of the pistol will be as nearly in focus as the front sight. Some shooters may be able to see only the notch of the rear sight in sharp focus; the outer extremities may become slightly blurred.

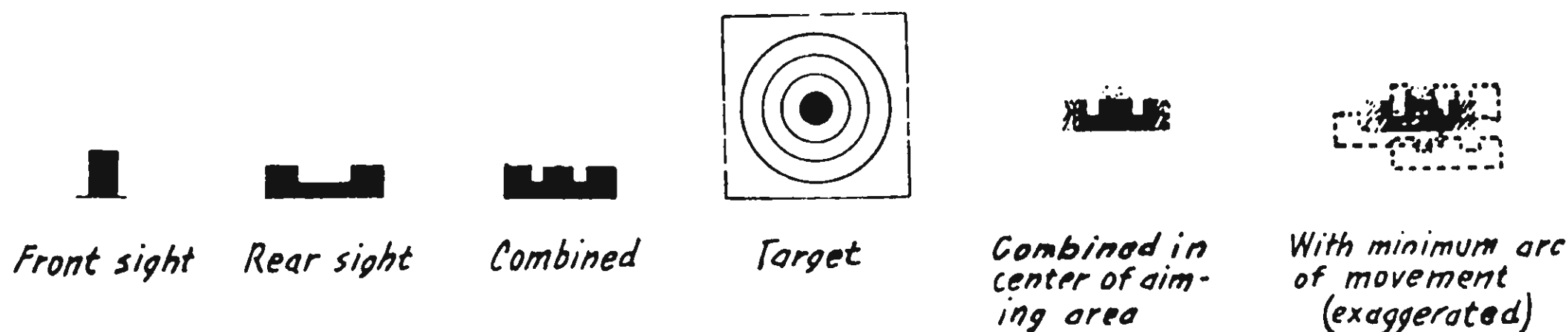


Figure 1-11. The Relationship of the Sights.

If the shooter does not observe correct aiming (maintaining the top surface of the centered front sight on a level with the top of the rear sight and equal light space on each side of the front sight), there will be few accurate shots. Most often, he locates the front sight in a different position in the rear notch. This accounts for a greater dispersion of shots on the target, since the bullets will deviate in the direction in which the front sight is positioned in the notch.

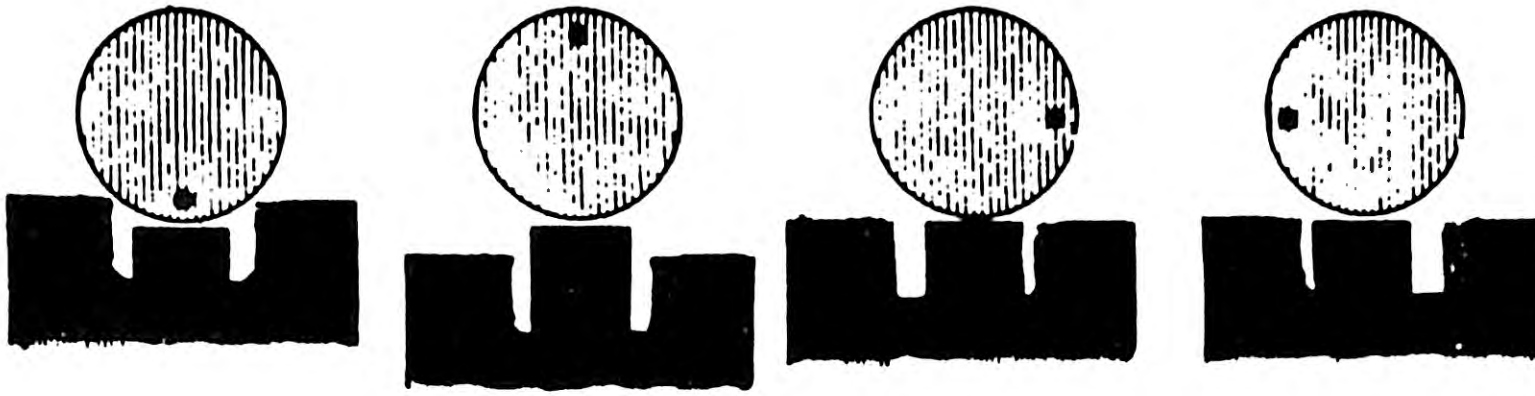


Figure 1-12. Displacement of the Bullet When There is an Error in the Alignment of the Front Sight.

The accuracy of a shot depends mainly upon the shooter's ability to consistently maintain correct sight alignment. The main effort should be toward keeping your sights aligned. Holding the pistol perfectly still is desirable but it is not mandatory in order to hit the 10 ring.

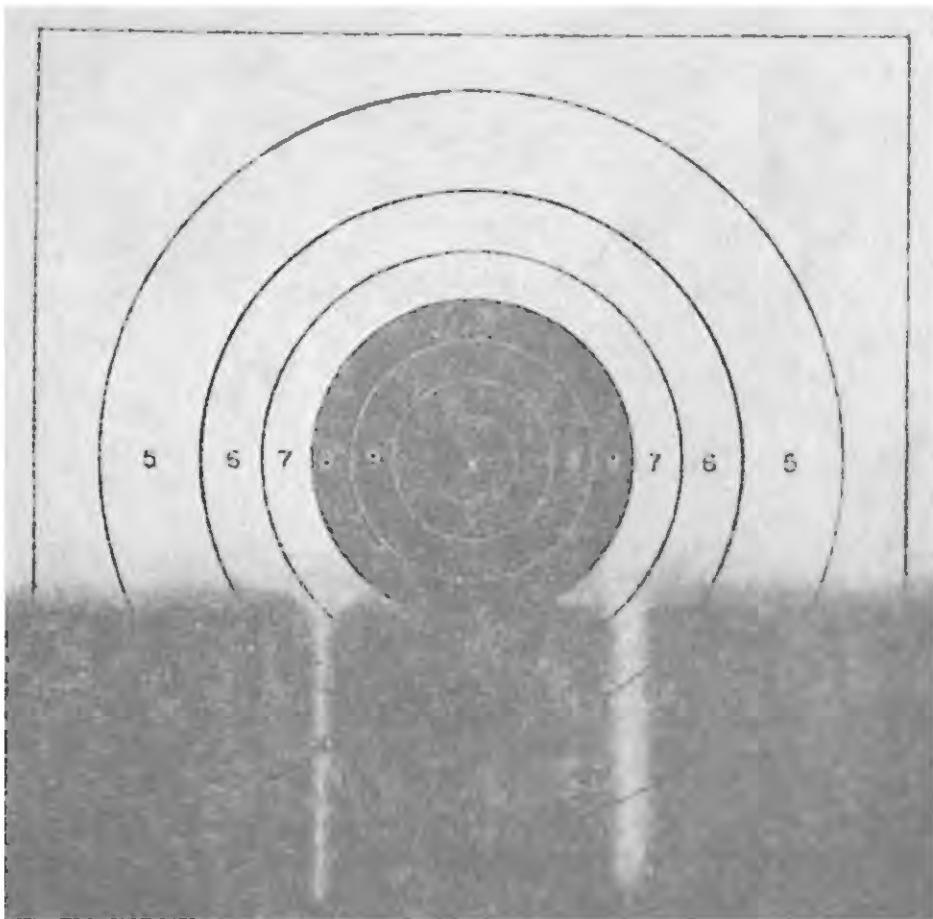


Figure 1-13. Improper. Control of sight alignment is not precise. Distinct focus on target renders sight indistinct. Error incorporated here is the same as Fig 1-14 and is not as readily apparent.

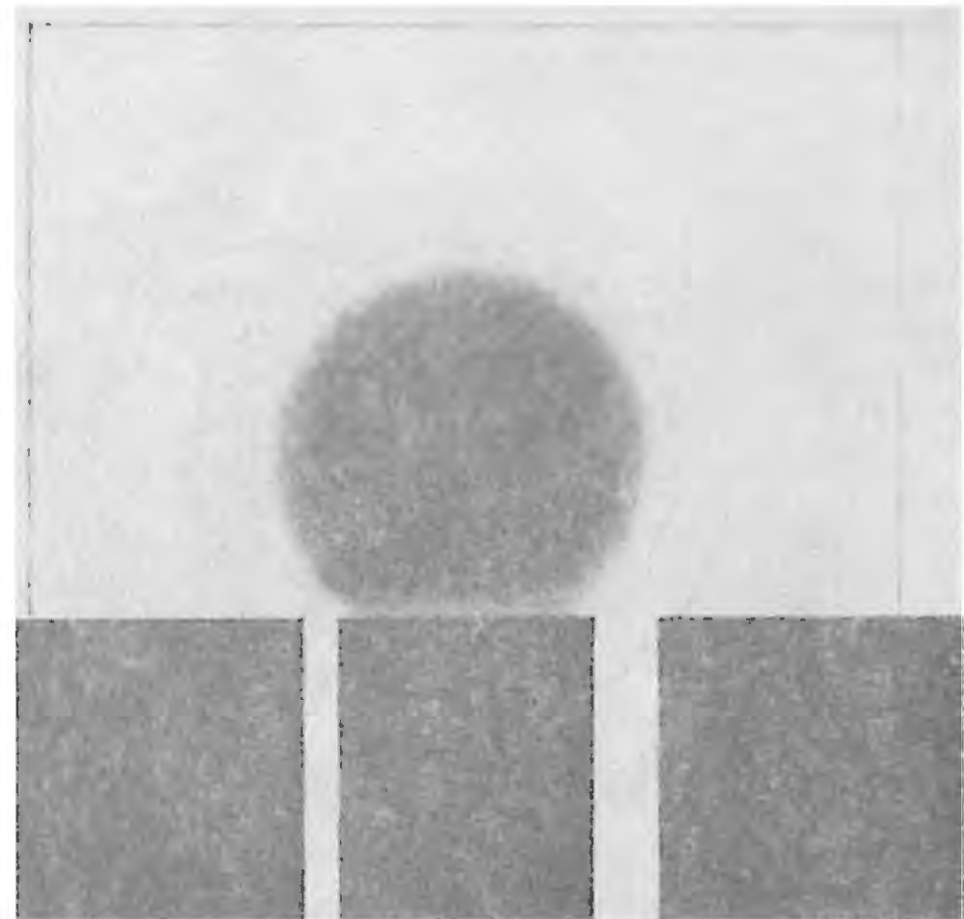


Figure 1-14. Proper. Control alignment is precise. Focus limited to front sight only, renders the sights distinct and target indistinct and sight relationships can be controlled constantly.

It is imperative to maintain "front sight point of focus" throughout the sighting and aiming of the pistol. The shooter must concentrate on maintaining the correct relationship between front and rear sight, and the point of focus must be on the front sight during the short period required to deliver the shot. If the focus is displaced forward, and the target is momentarily in clear focus, the ability of the shooter to achieve correct sight alignment is jeopardized for that moment. Frequently, this is the moment that the pistol fires. A controlled, accurate shot is impossible under these conditions.

When the eye is focused on the target the relatively small movement of the arm appears magnified. However, when the eye is correctly focused on the front sight this movement appears to have been reduced.

E. TRIGGER CONTROL:

The word squeeze is used erroneously in connection with trigger control. When we think of the action of squeezing, we usually close all four fingers and thumb together at the same time. This is definitely not proper trigger control. The pressure put on the trigger must come from the trigger finger only. The gripping fingers and the thumb do not move. Review the section on grip. Keep the grip pressure constant. Align the sights, settle into your normal aiming area and exert positive, constantly increasing pressure, straight to the rear with the trigger finger until the hammer falls. You must not look for a perfect sight picture of rear sight-front sight-bullseye. Instead, focus your eye upon the front sight, keeping it perfectly aligned with the rear sight. The blur of the out-of-focus target may move about slightly, but this is your minimum arc of movement. Any time the weapon fires with perfect sight alignment as a surprise shot, the shot will hit the target within your ability to hold.

Proper Placement of the Trigger Finger: It is necessary to apply pressure on the trigger with either the first bone section of the index finger, or with the first joint. The trigger must be pressed straight to the rear. If the finger presses the trigger to the side, undesirable things will happen. The weight of trigger pull will increase; because of additional friction on certain parts of the trigger mechanism an otherwise flawless trigger action will take on the characteristics of a poor trigger when side pressure is exerted on the trigger. Another consideration is the effect that side pressure has on sight alignment. Only slight pressure to the side is required to bring about an error in sight alignment. The prime cause of exerting pressure to the side is improper placement of the trigger finger.

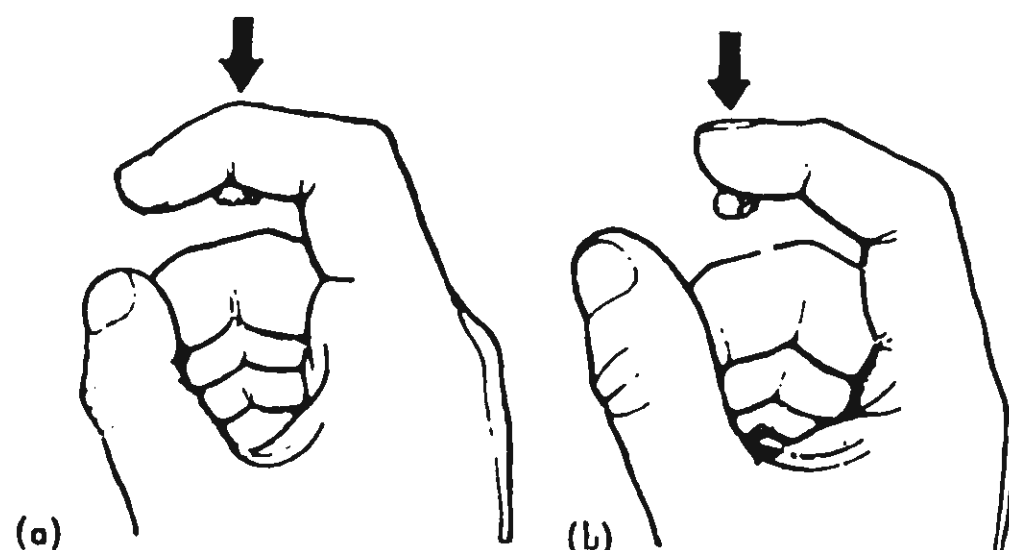


Figure 1-15. Correct Placement of the Index Finger on the Trigger, (a) With Joint of Index Finger. (b) With First Bone Section of Index Finger.

Ideal trigger finger placement may be modified to a degree by the requirement that the grip provides a natural alignment of the front and rear sights. The shooter frequently must make a compromise to overcome the undesirable effects of not being able to utilize each factor to full advantage.

Positive Uninterrupted Trigger Pressure is primarily the act of completing the firing of the shot once starting the application of trigger pressure. The shooter is committed to an unchanging rate of pressure, no speed up, no slowdown or stopping. The trigger pressure is of an uninterrupted nature because it is not applied initially unless conditions are settled and near perfect. If the perfect conditions deteriorate, the shooter should not fire, but bench the weapon, relax, replan, and start again.

In instances when the pistol is stable and steady, and the periods of minimum arc of movement are of longer duration, it is immaterial whether the release of the trigger is completed a second sooner or a second later. Anytime that the shot is fired with minimum arc of movement and the sights are in alignment, it will be a good shot. Therefore, when the shooter has established stable minimum arc of movement and sight alignment, he must immediately begin to press on the trigger, smoothly but positively, and straight to the rear without stopping, until a shot is produced. This method of controlling the trigger action will give the shooter a surprise break of the shot before any muscular reflex can disturb sight alignment.

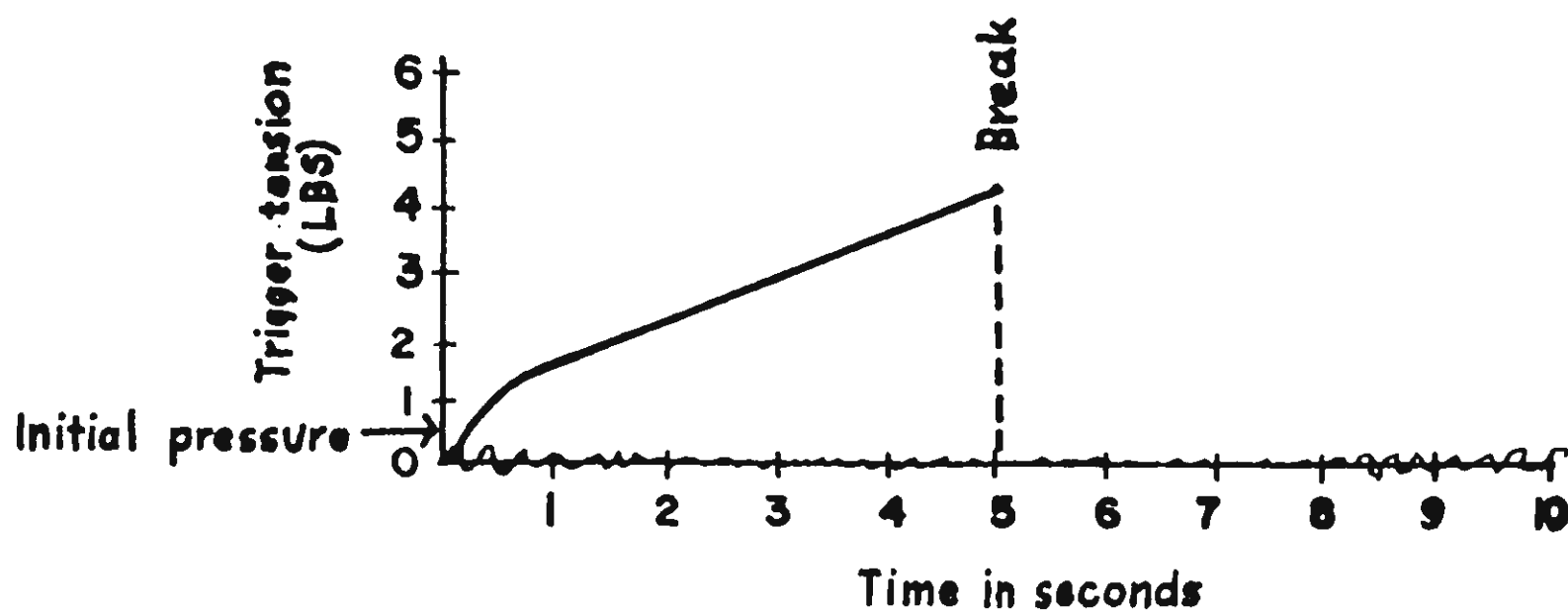


Figure 1-16. Application of Positive Uninterrupted Trigger Pressure.

F. DRY FIRING:

Dry firing will develop and improve every element of shooting. Repeated dry practice, properly executed, brings the shooter nearer to accomplishing his goal of firing twenty, thirty or even ninety shots uniformly and under complete control.

Dry firing specifically increases ability to align your sights properly. It minimizes your arc of movement. It also develops precise and uniformly coordinated trigger control. It develops timing in timed and rapid fire and generates a feeling of confidence when ammunition is used. Thirty minutes maximum is suggested for dry practice each day. This should be broken into short periods of dry fire of 3-5 minutes of each.

II. ZEROING AND PRELIMINARY PREPARATION

A. ZEROING:

There is no excuse for losing points in any competition because of an improperly zeroed pistol. Such a demonstration of lack of thought and preparation should be left to the tyros.

Do not attempt to zero by moving your sights after you have fired only one round. One shot can easily be off center because of errors committed by the shooter and no sight change is warranted. Zero your group, not individual shots. What good is a zero you obtained by shooting slow fire at twenty-five yards when you never shoot slow fire at twenty-five yards? Remember, a nine out the top is just as good as a nine out the bottom.

Never hold off or use "Kentucky" windage. This is adding a factor that is not consistent with proper trigger control. The shooter forces the shot to break at a specific spot and time instead of allowing the normal arc of movement and waiting for the surprise break of the shot. Don't chase the zero around the target. If you are grouping outside of the center of the target, adjust the sights to compensate for the misplaced group.

Listed below are examples of pistol target sights in use today. One click on each sight will move the strike of the bullet approximately the distance indicated at 50 yards.

<u>SIGHT</u>	<u>DISTANCE MOVED AT 50 YARDS</u>
Micro	1"
Colt Accro	1"
New High Standard	3/4"
Elliason	3/4"
Giles	1/2"
Bomar	1/2"

At times on different ranges, and under various weather and light conditions, you may find your zero changes slightly. You have a score book which has provisions for you to write in your sight settings, for specific ranges and under many varying conditions. It is difficult to remember the data about each range. Write it down. Post your normal zero on your gun box lid. Also mark the normal sight settings on the notch of the elevation and windage screws of each weapon as a reference point. These reference marks can be a spot of white paint or a dab of fingernail polish.

B. PRELIMINARY PREPARATION:

Habitually performing the following actions relieves the mind of doubt that some of the numerous essentials may have been overlooked. We can ill afford to dilute our ability to concentrate on our shooting by worrying over things we can do before hand.

1. Mechanical.

- a. Watch for your relay.
- b. On time at the right target.

- c. Blacken sights.
 - d. Ammunition.
 - e. Sight change, if necessary.
 - f. Telescope, on proper target, no holes on target.
 - g. Ear plugs.
 - h. Stop watch.
2. Mental.

Understand first that you are the determining factor in your performance. Luck is too undependable. Good shooters are not lucky, they make themselves apply the fundamentals on each shot fired.

Attempt not only to win each match but to set a new record. No expectation, no return.

Expect to work hard and think-think-think.

Prior planning in careful detail to your action in the delivery of each shot will minimize the destructive effect of tension and pressure.

Delays and irregularities in range operation upset some shooters. Use this factor to your advantage by remaining relaxed and exercising patience.

If the shooter resolves in advance that everytime he sees good sight alignment within his normal arc of movement, he will apply positive pressure straight to the rear until the weapon fires. He must concentrate exclusively on sight alignment and sufficient pressure to fire the shot will be applied involuntarily. If his training has developed a conditioned reaction of positive trigger pressure when he sees perfect sight alignment and minimum arc of movement, he will get a surprise shot.

Confidence is the deciding factor. You will achieve proper results if you are convinced you are capable of applying the fundamentals uniformly each time you fire a shot.

III. APPLICATIONS OF FUNDAMENTALS

A. SLOW FIRE TECHNIQUE:

Because most of the points lost in any aggregate are lost at slow fire it is imperative that this become your strongest stage.

Accept shot values in your aiming area. Focus on the front sight and apply positive pressure all the way through until the shot breaks.

SHOT SEQUENCE

1. Settle Into Your Aiming Area. Your normal arc of movement is readily apparent. If in the wind it happens to be larger or have abnormal characteristics and you are unable to reduce it to normal, accept this as minimum for today and proceed to fire. However, make every effort to hold the weapon as motionless as possible. Take up initial trigger pressure at this time.

2. Find Sight Alignment. Your sight alignment must be exact and in such distinct focus that the bullseye becomes a blurred gray mass somewhere beyond the front sight.

3. Start Positive Trigger Pressure. Be determined that once started, a positive constant rate of pressure is to be completed without interruption. Any hesitation, change of rate, doubt about results or loss of concentration will give you less than acceptable score for that shot.

4. Concentrate on Sight Alignment. Any distraction warrants benching the weapon and starting over. Do not try to fire the shot if any controllable irregularity disturbs the existence of ideal conditions. Do not think of impending results at the target. Any surprise shot within the aiming area with good sight alignment will be a good shot. You must not think of anything except sight alignment.

5. Try for a surprise break of the shot. Your reflexes cannot act quickly enough to disturb sight alignment or a smooth, positive trigger pressure if the shot breaks as a surprise. Shots breaking in the aiming area with good sight alignment will form a group that represents the equivalent of your holding ability.

6. Additional Suggestions.

It may be advantageous to rest after three or four shots. Remember that you do not have to shoot before bringing your gun down to rest. When a shooter fatigues, runs short of breath or experiences difficulty in concentration, by all means he should lower his arm, relax, breathe deeply and try again. Some excellent slow fire shooters try two or three times before getting a shot fired. Do not expect to have a perfect sight picture. Only perfect sight alignment. You can shoot groups only within your ability to hold. Later your hold will improve and your groups will consequently grow smaller.

Sometime during the 6 seconds required to fire a shot in slow fire, your arc of movement will be maintained at a minimum. The positive trigger pressure should progress at such a rate as to attain a surprise break during this period.

Example: If a shooter's minimum arc of movement is reached at about two seconds after settling, he should train himself to break his shots in 3-6 seconds. In most shooters, the minimum arc of movement lasts only 6-8 seconds.

B. TIMED AND RAPID FIRE TECHNIQUES:

Prior to firing any string of timed or rapid fire it is imperative that you mentally run through the sequence of the string itself. You must be psychologically as well as physically ready to fire at 25 yards. You will find that this prior determination will assist in your rhythm, trigger control and recovery and ease any match pressure that you are subjected to at the time. Timed and rapid fire are fired with the same basic technique.

1. Timed Fire. Prepare your lungs by breathing deeply prior to firing and holding the breath with lungs approximately half full just as you align your sights. Make rhythm the prime object. Never vary your rhythm. Adjust your recovery so that you have your sights aligned in time for the next shot to go, but do not wait for the perfect sight picture. If you maintain your rhythm and sight alignment and fail to get the hold on the center of target just right, you may get nines, but if you make the weapon fire just as the sight picture is perfect, you will get the axe.

2. Rapid Fire. Rapid fire is essentially the same as timed fire. You can improve your rapid fire by learning to fire the first shot within the first second after the target faces you. Immediate recovery of sight alignment and hold after each shot depends on perfection of uniform position and grip. Special attention to an uninterrupted, unchanging rate of trigger pressure will help develop for you the coordinated rhythm which will offset time worry. You also must learn to start your trigger pressure before the sights become perfectly aligned. Make every effort to prevent extraneous thoughts, which may disturb rhythm and concentration. Think only of sight alignment. The habits formed during training will follow in proper sequence and deliver the shot under perfect control.

3. Shot Sequence for Timed and Rapid Fire, After Extending the Arm, Deep Breathe and:

a. Find slight alignment. The front sight should settle naturally into alignment with the rear sight, vertically and horizontally. Concentrate on looking at the front sight.

b. Aim at a spot on edge of the target frame in line with your bullseye aiming area before targets are faced. You must be holding on your aiming area when the targets face with no need to adjust hold before pressing the trigger.

c. Settle into aiming area with minimum arc of movement.

d. Point focus on front sight.

e. Take up slack in trigger and apply initial pressure.

f. Maintain sight alignment. Any time the shot breaks in your minimum arc of movement with good sight alignment, it will strike the target within your ability to hold.

g. Start positive trigger pressure on turn of target. If your position and grip are correct and you are concentrating on alignment of sights, trigger pressure started at the turn of the target will give you a surprise shot in the first second.

h. Recovery. Correct recovery in hold with the sights approximately aligned in the aiming area is obtained only if your position and grip are correct.

i. Reapply positive trigger pressure. After the first shot in rapid fire you must start your trigger pressure before you have recovered perfect sight alignment. This does not mean that you subordinate sight alignment to trigger control. Start your trigger pressure as quickly as possible while continuously concentrating on and perfecting sight alignment. Seek sight alignment not sight picture. Your natural aversion to not firing without correct sight alignment must not delay your trigger pressure until the sights are brought into better alignment.

C. USE OF SHOOTERS WORKSHEET:

Care should be taken during the early stages of instructional practice to comply with each of the items on the shooters work sheet. As the shooters become more capable only the key items of preparation, shot sequence and shot analysis are relevant. Methodical repetition of these essential steps will instill in the shooter good shooting habits that will enable him to repeat consecutively a good shooting performance. Further, the worksheet will help the shooter form the habit of not overlooking any factor that will enable him to repeat consecutively a good shooting performance. Further, the worksheet will help the shooter form the habit of not overlooking any factor that will help his shooting. Winning scores are produced by being ready, confident, performing uniformly and being in complete control of your shooting.

A sample copy of the shooters worksheet is attached as Annex #1.

D. WIND SHOOTING AND UNUSUAL CONDITIONS:

1. Wind shooting.

Wind shooting is conducive to jerking the trigger. This is true because as the arc of movement increases the shooter develops a tendency to relax his trigger pressure. He is waiting for a more stable sight picture. His concentration on sight alignment will diminish and he will make an effort to set the shot off on the move as the sights pass the vicinity of the target center. The obvious answer is to, first: wait for a lull in the wind, next; concentrate as one normally does on sight alignment and as a minimum of movement for the existing conditions is sensed, start an ever increasing pressure on the trigger until the shot is fired. Do not continue the hold during extreme gusts. Always take advantage of a chance to rest. Each attempt to fire a shot should be made with a firm resolve to align the sights and to apply positive increasing trigger pressure until the shot is fired.

Your shot group will be larger as a result of the increased movement but the wild shots resulting from faulty sight alignment, flinching, jerking and over correction will be minimized. During timed and rapid fire, the shooter has to fire when the commands are given, wind or no wind. The means of overcoming this disturbing handicap are as in slow fire but with less positive results generally because the shooter cannot wait for the lulls in wind. Concentration on sight alignment regardless of movement caused by wind, will result in groups only slightly larger than those fired under ideal conditions.

Extensive practice under windy conditions is not recommended but enough firing should be conducted under those conditions to prevent a stampede for the nearest wind shelter when a wisp of air movement stirs the pine tops.

2. Unusual Conditions.

Adverse weather conditions such as cold, hot or rainy weather or dim light pose problems that can be solved in much the same manner as in wind shooting. Determine to adhere to the fundamentals and ignore as much as possible the distractions that are demoralizing the competition. Pocket warmers, raincoats and sweatbands are a help, but the major portion of our accomplishments on the firing range stems from our mental capacity to face up to the out of ordinary and parlay these conditions into a winning margin.

Poor conditions must never become an excuse for less than a maximum effort. Good scores are produced by hard work regardless of the conditions.

IV. SHOT ANALYSIS AND POSITIVE CORRECTIONS

Complete and instantaneous shot analysis is a mandatory prerequisite for any improvement in your performance or scores. It is a complete waste of time and ammunition to stand on the line and fire haphazardly without any plan to improve. A mental impression of where the shot went and why, should come at the instant the shot breaks. Corrective measures to prevent the reoccurrence of a poor performance must be instantaneously applied. Much has been written about why we shoot poorly; however, be reminded that it is just as advantageous to analyze why you are shooting well on a particular day. It is more helpful to know the right way to perform than to have your mind cluttered with a multitude of "don't". Coaches in particular should concentrate on and emphasize the positive factors.

CAUSES OF BAD SHOTS AND POSITIVE CORRECTIONS:

There are obviously a multitude of causes for bad shots. We have listed below those most frequently found. It is not intended to be a complete list nor is it intended to provide the shooter with a convenient list of bad habits. It is however, intended to assist the shooter in finding the source of his troubles.

1. Not Focusing on Front Sight. This quite frequently is listed as "looking at the target". A shooter may be focusing his eye on neither the sights nor the target, but since he does not see the target in clear focus he assumes he is looking at the sights. You must concentrate on the front sight and maintain sight alignment while the shot is being fired.

2. Holding Too Long. Adverse conditions that interrupt a shooter's ability to "hold" may cause him to delay his trigger pressure, waiting for conditions to get better. The disturbing factor about this is that you will do it unconsciously; therefore, you must continuously ask yourself, "Am I determined to apply positive pressure on the trigger even if the arc of movement enlarges as long as I have perfect sight alignment?"

3. Improper Grip or Position. Suffice to say that you cannot fire a decent score with any gun at any range if you continually fire under the handicap of a faulty position that pulls you to either side of the target or a grip that does not give you natural sight alignment.

4. Jerk or Heel. The application of abrupt trigger pressure with the trigger finger or in the case of the heel, flinching pushes the heel of the hand in a reflex action. This is caused by the need to fire quickly during the short duration of a sight picture or the sights passing near the target center. During a wind shot, sight alignment is much easier to maintain than a sight picture. Apply pressure to the trigger straight to the rear and wait for the shot to break.

5. Anticipation. Anticipation can cause muscular reflexes of an instant nature that so closely coincide with recoil that extreme difficulty is experienced in making an accurate call. Anticipation is also the sire to flinching.

6. Loss of Concentration. If the shooter fails in his determination to apply positive pressure on the trigger while concentrating on the front sight, his prior determination needs renewal and he should rest and start over.

7. Anxiety. You work and work on a shot, meanwhile building up in your mind doubt about chances of the shot being good. Finally you shoot just to get rid of that particular round so you may work on the others.

8. Vacillation. This is a mental fault more than a physical one, which results in your accepting minor imperfections in some of your shots which you could correct if you worked a little harder. The end result being you hope you can get a good shot. Apply the same determination and techniques to every shot you fire and your resulting scores will reflect the uniformity of performance.

9. Lack of Follow Thru. Follow thru is the subconscious attempt to keep everything just as it was at the time the shot fired. In other words you are continuing to fire the shot even after it is gone. Follow thru is not to be confused with recovery. Merely recovering and holding on the target after the shot is fired is no indication that you are following thru.

10. Lack of Rhythm. Hesitancy on the first shot or any subsequent shot in timed or rapid fire. Develop a good rhythm with positive trigger pressure and then have the fortitude to employ it in every case. Frequently many shooters will have fine rhythm until the last shot of a string and then hesitate, doctoring up that last shot for extra perfection. Time runs short, the target starts to turn and the shot is jerked.

11. Match Pressure. If there are 200 real competitors in a match, rest assured that there are 200 shooters suffering from some degree of match pressure. If you are exerting all your mental energy toward correctly executing the fundamentals rather than the probable results, your reward will be what you feel when people congratulate you on a fine performance.

V. MENTAL DISCIPLINE

If you think that you and you alone have the problem of match pressure, look around, we all have it. The man who has never experienced match pressure has never thought he was in a position to win a match. What is the difference? Where is the dividing line between champion and duffer? Both may shoot comparable scores in practice, yet one is invariably at the top of the bulletin and the other on the second page. The dividing line is clear and obvious; the ability or lack of ability to control their thinking. Mental discipline. Some have learned to control their emotions and anxieties and go right ahead and perform within their capabilities. Others, even with years of experience, and also with a wealth of doubts and negative thoughts, pressure themselves out of the competition everytime they step up to the firing line.

A. First in our treatment of match pressure we must find what causes it, for without knowing precipitating factors we can never combat it. Match pressure is the direct result of the fear of failure or loss of self esteem. Are we afraid of winning? If this were the real cause, we would have no desire to win, or to perform well, and there would be no pressure. No, it is not the actual winning we are afraid of. We are afraid of not winning. This brings us right back to our fear of performing poorly and having our fellow competitors see our poor performances.

What happens to us physically when we are subjected to all of these mental gymnastics that result from match pressure. First and most prominent we shake, we drop our magazines, put our scope on the wrong target. In short we commit what seems a series of asinine mistakes that normally would never occur; the type of things that result from the preoccupation of our minds with useless psychological distractions. In addition you invariably experience a shortness of breath which increases your breathing rate, and your heart beats about twice as fast as necessary. All of which seem to make it impossible for us to hold our pistol reasonably steady, let alone shoot well. To add to our distress we feel that everyone is witnessing our anxiety and stupidity. Yet with all this our counterpart the champion appears to be calm and enjoying himself. Let's face it, he is.

B. Definite advantages to match pressure. Many of our senses are more acute. For our purposes we see better, and our sense of touch is more exacting, (this is why your trigger seems to become heavier in a match, actually it has not changed a bit, but we are more aware of it). Our awareness of the passage of time becomes more vivid. Don't believe it? What about the anxiety you feel just before you shoot the last round of a rapid fire string. All of these added together should, if employed correctly, make us more exacting and consequently better our performance. I refer you to those champion shooters who shoot better in competition than in practice. However, all of this is not pure gold. We said that these factors can better your performance if employed correctly. They can also detract from our score if we fail to recognize this for what it is and notice only that our sights are misaligned and the size of our aiming area has increased, this will cause hesitation in your squeeze, making you hold it long, "dressing it up". In fact so long that the oxygen supply to your eyes is depleted and the focus impaired to the extent that you fail to see your errors. This results in a shot that is fired with incorrect sight alignment which you called good, but was not. And this does what to your match pressure? It doesn't reduce it! The object, of course, is mental control which will turn all of this to our advantage.

C. How do you control it? First, realize that it can be controlled and actually used to your advantage. Our shooting champions have learned to control their shooting to the extent that their match and practice scores don't vary appreciably. Most of these fine shooters have shot better than 2650 at one time or another. If their match scores were one percent less than their practice scores, this would mean that they must shoot practice scores as high as 2676. How much do your practice scores vary? The champion shooters have learned to control their thinking. So we have the first premise. "It can be controlled."

Lest there be any misconceptions before we go any further, one way you cannot control match pressure and still shoot well is by the use of alcohol and/or drugs. True enough that either one or both of these many control some of the symptoms brought about by pressure, in doing so they incapacitate you in other ways that will prohibit good scores. There are stories to the effect that a well known shooter won a match and he was so drunk he had to be led to the firing line. How did he do in the grand aggregate?

1. Confidence - people have been telling you for years that you must have confidence to shoot well. Confidence in what? How do you get it? How do we keep it once we put our hands on it? First and foremost you must have confidence in the fundamentals that you use. Nothing can be more undermining than to attempt any task with wishy-washy ideas about how to accomplish it. You must believe, and preferably prove to yourself, that sight alignment is vastly more important than sight picture. Believing in correct rhythm and your ability to execute the same is the greatest deterrent to anxiety in rapid fire. Basic fundamentals have been proven to be correct over a period of years and they are not going to change over night just because you are in a match. Fundamentals need and deserve your confidence.

Confidence in yourself and your ability to execute these proven fundamentals correctly. You have proven your degree of ability to do this in your practice sessions. Go ahead and do it in the match. To the timid and hesitating, everything is impossible, because it seems so.

2. Think big! Think positive! "I can do this, I will do it", and you will succeed. However, as soon as you admit the slightest possibility of failure, so long as there is an influence in your mind that is preventing you from putting all your energies into your task, your success is questionable. It has been said innumerable times that a pistol shooter must have an open mind, implying that we must have the ability to accept new ideas. True. However, a mind completely open is a mind blindly absorbing. A completely open mind is what a new born child has, and obviously that is not what we want. What we should strive for is a mind that is open to positive thoughts and completely closed to these of negative vein. You have heard so many times "don't jerk the trigger". True as this axiom may be it is of no advantage to have this running through your mind when you are trying to get off a shot, for it is negative, it implies failure, it continually occupies your efforts with something you do not want to do rather than something you should do. Would it not be more advantageous to think "I must apply trigger pressure firmly, evenly and straight to the rear, for when I do this I will be able to maintain sight alignment until the shot breaks.

3. Our analysis and positive correction should be complete and positive. For example, a poor slow fire string as a result of holding too long. This time the positive correction goes all the way. How do we do this? By applying more trigger pressure with more determination when we start to fire the shot. This is positive and will work. Compare the two. "Don't hold 'em too long", and "Apply positive trigger pressure with more determination right from the beginning and this will give me a quicker and undoubtedly a surprise break".

In short, most of us only half complete our analysis and positive correction. We analyze get a correction, but we leave this correction in the negative (I must not do this) rather than going further to the positive (I will do this). This system of analysis and leaving correction in the negative when practiced for a period of time fills your mind with anxiety and doubts about your ability, leaving no room for confidence.

Now let's practice what we preach and talk about the positive side. All of us almost without exception attempt to find out what we do wrong when we shoot poorly. But, how many of us have failed to recognize the tremendous advantages of analyzing why or what we do when we shoot well. There is a great tendency to just accept good scores, be joyous and wish that we could perform this way more frequently. Herein lies the greatest mistake of all, for in a good performance you have employed properly all the fundamentals you need for a good score. Look into your good performances with more scrutiny than you do your bad. What fundamentals were most prominent while you were shooting? What were you thinking? How did you execute the trigger control? Don't pass up this tremendous opportunity to fill your mind with the correct things to do. If you get an "X" on a given shot and have no idea how you performed to get it, it is very difficult to repeat that good performance.

D. Helpful Suggestions.

1. Channel your thinking to fundamentals. You must continually think fundamentals and review them in your mind. Train yourself so that as many as possible of these fundamentals are executed automatically without any deliberate effort on your part. When you do this, it leaves you with only the most important fundamental, sight alignment, to contend with in the actual firing. This will enable you to, as an example, place all of your mental and physical effort toward keeping the sights aligned while your stance, position and trigger control are so well ingrained as a result of training that you will employ them automatically.

2. Train yourself to think performance rather than score. Employing this technique, an eight or seven becomes not a shot that subtracts two or three points from your aggregate, but a shot where you allowed yourself to deviate from one of the fundamentals. Rest assured that if you do your part on the firing line the score will take care of itself.

3. Who said "Stay out of the scope?" To what advantage? If you are shooting a slow fire match you must go down to the target and score after ten shots. Do you think you are going to keep something from yourself? Why should a good score scare you? This is just exactly what you went up the line to do. Of what value is a 98 slow fire if you don't possess the fortitude to continue? Learn to use the scope for the purpose it was intended. A check on your performance and zero. Use your scope as an aid in your analytical procedure, not to score your target. We are not so pretentious that we believe we are going to go through a ten shot string of slow fire with only three nines and not know what our score is. Our scope is, once again, to be used to evaluate the end product of your performance.

4. Work on each shot individually or in the case of 25 yards, each string of shots. They must be treated this way for in reality there is no reason to believe that because your first shot was an eight your next one will be the same. Nor is it logical that if your first three shots were tens you have a guarantee that those to follow will also be tens. Each one is merely a representation of your ability to apply the fundamentals correctly. And your ability to do this will vary considerably if you let it.

5. Prior mental determination. This is the greatest asset that we have available to us. By simply thinking through the correct procedure for firing each shot just before you shoot, and making up your mind to do it the correct way, you can virtually eliminate distractions in the actual execution. Be warned right now, that if you fail to do this and approach the shot without a preconceived plan of attack, or without the mental determination to be right come fire or flood, your results at best will be erratic. You readily appreciate the necessity for concentrating on and aligning your sights. A very effective way to assist in this is to sit down and close your eyes and imagine front and rear sight not including the target. Try it right now. Most of us find that it is almost impossible to keep them aligned perfectly even in our mind's eye. However by doing this, you are conditioning your mind to accept the fact that they must be aligned. As a result it becomes that much easier for you to do it on the range. This technique of mentally aligning the sights is very effective if practiced just before going to sleep at night.

6. Win the aggregate not just one match. Why should we become excited or worried when we have cleaned three of the four strings of the 45 timed fire match. Go right ahead and clean the next string. Sure if you do so you MAY win the 45 timed fire but, that is not your overall objective. You came here to win the aggregate not just one match. Don't drop a couple of points here just because the possibility of winning one match has arisen.

7. Establish a routine. From routine comes boredom. What is boredom? The lack of excitement. What are we trying to do? Keep from becoming excited. In a more serious vein, by establishing a routine you eliminate the possibility of forgetting some extremely trivial item of preparation that may throw you off balance later in the match if you continue to neglect it.

8. Relax your mind. Right from the time you get up in the morning. Nothing will put you in a greater state of mental agitation than to have to rush through breakfast, rush to the range just in time to make your relay. If this happens your slow fire score is ruined at about the third red light you hit. Take it easy, shooting is fun, enjoy it.

9. Practice tranquility. Ever see the guy that loses his temper every time he has a bad shot? Who is he mad at? Those individuals who lose their tempers are doing nothing more than self admonishment for their vacillation in the execution of a shot. They recognize that if they had worked a little harder the shot would have been better. On the other hand if we do everything without our power to make the shot good and for some reason or other it isn't we have no cause for irritation. Although a good shooter must place all of his mental and physical ability toward shooting a good score, infrequently he will fail to do this. Suffice to say that when this happens, if he chastises himself severely, or falls into a fit of complete depression because of a poor score, he will hurt greatly his chances for the rest of the match. It is not intended that you laugh off or treat lightly a poor performance; however, you must possess the presence of mind to accept the bitter with the sweet.

10. Match experience. Without question one of the ingredients necessary in the making of an accomplished pistol competitor. However, experience alone is of no value. We must flavor our experience with an accurate and honest evaluation of our scores. We must at one time or another experience some sort of mental control. It is not easy and is often left out of our training until our ability to shoot far outreaches our ability to shoot when the chips are down. Perhaps when we first hand a youngster a pistol and say "this is the front sight and this is the rear sight", we might well add right then "these are the two things that you must train your mind as well as your hand and eye to keep aligned".

11. Physical conditioning. There is no doubt whatsoever that you can shoot better if you are in good physical condition. Your ability to hold, for example, is no better than the ability of the muscles of your arm to do this for you. Your ability to endure the stress and strain of pressure and anxiety is directly proportional to your physical condition, if for no other reason than your recognizing the fact that your physical condition is better because you have a good conditioning program.

12. Argue with your subconscious. Not only argue with it but win the argument. Even as we read this some of us are hearing that little voice in the back of our minds saying "yea this sort of thing may work for Joe, but I know damn well I'm going to goof up the next time I get close". Whose voice is this? Where did these ideas come from in the first place? Where did this little guy get all his knowledge. Let's be realistic. Our conscious mind puts these ideas into our subconscious, so don't ever believe that you can't overpower it.

It's not easy. He's been saying what he pleased for years now and he isn't going to be routed easily. But don't give in to him and eventually you will find that he is on your side.

13. Now with all of this emphasis on the positive approach you are goint to get a big "DON'T". Don't expect immediate results the first time you try mental discipline. There is no sure cure for anything. There are no hidden secrets. All that we gain is the direct result of hard work. If you find that you can only exercise control for a short period of time work on extending this period. Remember that your returns are in proportion to your investments.

You and you alone are responsible for your performance and no man has the right to be a failure.

14. You must do more than just shoot during practice sessions. Call your shots slow fire and analyze your weaknesses. No amount of shooting will improve your score unless thought and planning go along with the shooting. The shooters worksheet will assist here. Don't try to shoot too much. If the point of diminishing returns is reached, no benefit is derived beyond that point. Keep an accurate record of your progress. If you fail to write down your scores you will soon remember only the good ones. Always attempt to practice with another shooter, for if you shoot alone there is a tendency to relax your striving toward your objectives.

15. When you are troubled with flinching, use the ball and dummy system, until you conquer the fault. This insures that you will soon be applying pressure on the trigger without knowing whether or not a live round is under the hammer. When the hammer falls on the empty chamber you will be able to see your flinch, an soon eliminate it. If you can get a surprise break with each shot your flinching troubles will be reduced to a minimum.

16. Frequently rest your eyes by benching your weapon and gazing briefly at the greenery of the nearby countryside.

17. Never fire a shot after you have sensed that something is lacking in your effort to create the conditions under which the next shot will be a good shot. A compromise shot is something less than your best.

18. Keep a current copy of the rule book handy and have a thorough working knowledge of these rules. You have witnessed innumerable arguments about rules, in which both sides were positive their viewpoint or interpretation was the correct one. Not infrequently both were incorrect. This ever ready rule book may some day save you or your team some points. However, don't go so far as to be one of those individuals who is continually trying to win a match with the rule book. You still must shoot the predominant number of tens to win.

19. Learn to accept range procedure, which may vary from range to range either in the speed of operation or the sequence of operation. Establish a routine that will best enable you to keep up with unexpected changes in range procedure. As an example load your magazine before you go down to score, this will enable you to spend more time at the targets and still not have to rush when you get back to the line.

VI. ATTRIBUTES OF A TEAM SHOOTER

The once popular fallacy that good pistol scores are the result of blind stumbling luck has been proven completely erroneous. A quick look at the nation's outstanding pistol marksmen will show you individuals of higher than average level of intelligence. The necessity for intense concentration and strict adherence to a multitude of sometimes unnatural but correct shooting fundamentals, quickly eliminates those of lower intellect.

A good team shooter needs to have many attributes. However, if he lacks the ability for complete concentration and the intestinal fortitude to make up his mind to adhere to fundamentals regardless of match pressure, adverse weather conditions or any other conceivable distractions, he is useless to you and the team.

1. Compatibility. A team member must so conduct himself so that his presence is enjoyed by his team mates, win or lose. Hot tempers, tempermental prima donna and unbending contrariness will do little to improve shooting teamwork and may just possibly have a detrimental effect upon the team score.

2. Sure-Footed and Careful. This is no game for the indecisive. Each step must be planned and deliberate. Decide what has to be done, then carefully and methodically do it.

3. Confidence. A shooter must have no doubt whatsoever about his ability or the accuracy of his guns.

4. Consistency. A team shooter must be consistent enough that his performance can be predicted within reasonable limits.

5. Tranquility. Although a good shooter must place all of his mental and physical ability toward shooting a good score, infrequently he will fail in this. Suffice to say that when this happens if he admonished himself severely, or falls into a fit of complete depression because of poor score, he will greatly hurt his chances for the rest of the match. It is not intended that you laugh off or treat lightly a poor performance; however, you must possess the presence of mind to accept the bitter with the sweet.

6. Good Health. The eyes are important so they must be perfect or corrected to this condition. Good physical condition is imperative to give resiliency to the muscles and better nerve control. The day of the drinking, smoking, have a good time pistol champion is long past. To win today, a shooter must refrain from any habits of either eating or living that will impede his ability to perform at his best.

7. Open Mind. The shooter who has allowed himself to reach a mental state in which he can accept no help, no coaching, nor a frequent reevaluation of his technique, can never improve and his performance will usually decline.

8. Sportsmanship. A poor sport has no place on any Pistol team. He is a representative of his organization and a member of the team that is expected to serve as an example. Shoot to win, but if you are not the winner you should be proud of a teammate who is. There is no honor in winning over a teammate who did not shoot his best scores, so don't play underhanded and try to create unfavorable conditions for him. Win your matches by shooting better than the best of your competitors.

VII. SAFETY

The coach and the shooter must exercise utmost care in all phases of handling weapons and ammunition. Cleaning of weapons, dry practice, transporting guns and ammunition to and from quarters or on trips to matches seems to be more dangerous than when the equipment is being used in a match or organized practice. The average person is less apt to commit a dangerous act when in a crowd where many weapons are present. This no doubt is why you seldom hear of anyone being wounded or killed at pistol or rifle matches. The constant supervision and caution in handling firearms is well served. A coach or range official should not hesitate to admonish a person who commits even the slightest infraction.

The following reminders are listed to enable the shooter to avoid jeopardizing the safety of others or himself.

1. Execute unload everytime the pistol is picked up for any purpose. Never trust your memory. Consider every pistol as loaded until you have proved it otherwise.
2. Always unload the pistol if it is to be left where someone else may handle it.
3. Always point the pistol up when snapping it after examination. Keep the hammer fully down when the pistol is not loaded.
4. Never place the finger in the trigger guard until you intend to fire.
5. Never point the pistol at anyone you do not intend to shoot, nor in the direction where an accidental discharge may do harm. On the range, do not snap for practice while standing back of the firing line.
6. Before loading the pistol, draw back the slide and look through the bore to see that it is free from obstruction.
7. On the range, do not insert a loaded magazine until the time for firing.
8. Never turn around at the firing point while you hold a loaded pistol in your hand, because by doing you may point it at the man firing along side of you.
9. On the range, do not load the pistol with a cartridge in the chamber until immediate use is anticipated. If there is any delay, lock the pistol and only unlock it while extending the arm to fire. Do not lower the hammer on a loaded cartridge; the pistol is much safer cocked and locked.
10. In reducing a jam, first remove the magazine.
11. To remove a cartridge not fired, first remove the magazine, and then extract the cartridge from the chamber by drawing back the slide.
12. Safety devices should be frequently tested. A safety device is a dangerous device if it does not work when expected.
13. Don't mix alcohol with gun powder.
14. Make sure range is clear before firing if you are not participating in organized firing. In organized firing, fire only on command of range officer.
15. Do not handle weapon when any person is forward of firing line.

16. Do not fire over and above the barrier or backstop.

17. Protect weapons from theft, thereby preventing weapons from falling into the hands of irresponsible persons. Do not leave weapons unattended either on the range or in a car. Lock all shooting equipment in trunk of car when transporting. Equipment in an unlocked car is a temptation needlessly advertised.

VIII. DETRIMENTAL EFFECTS OF ALCOHOL AND SMOKING ON SHOOTERS

In addition to those proven ill effects on general health and longevity, the following effects and reactions will definitely prevent the shooter from reaching his maximum potential. Do not attempt to fool yourself, or to justify your own inability to refrain from either (or both) of these bad habits by pointing out the "exceptions" who are apparently able to fire good scores in spite of their habits. Most good shooters do not smoke at all or drink before or during their shooting.

1. Smoking (these are proven facts).

a. Shrinks capillaries causing increased heart action resulting in blood circulation difficulties, rapid, shallow respiration, increased pulse activity and frequent nerve pulsations in the extremities of the body.

b. Dries and "cures" large areas of the lungs, preventing proper utilization of oxygen breathed, and causing thereby the need for much faster heart beat and deeper breathing when under pressure.

c. Dulls certain sensory nerve endings in fingers causing diminished sensitivity.

2. Alcohol.

a. Causes temporary (eventually permanent) loss of sense of values and judgement.

b. A depressant. Alcohol will lessen the desire to win.

c. It will dehydrate the body and cause permanent, long term ill effects to blood, nerves and certain brain areas.

3. Drugs.

The debilitating after effects of even the mildest drugs are well known. Requirements increase rapidly causing eventual habitual need. If you receive medication in the form of prescribed drugs before a match, let the coach know about it.

4. Coffee.

Coffee overcomes depression. Three cups of coffee are equal to a five alarm fire in your nervous system during a match.

5. The following suggestions are offered concerning the above.

a. The use of tobacco should be discouraged. The smoker is slowly tightening an unbreakable linkage around his nervous control that will eventually destroy that control.

b. Alcoholic beverages when used should be in moderation and of the light variety, i. e., beer and only after completion of the day's shooting.

c. Mild drugs of a nature to calm the nerves and give a false feeling of stability in hope of attaining high scores under pressure are worthless.

d. Overeating and late hours when you are trying to accomplish the difficult task of developing into a better shooter or attempting to produce scores in a match that will enable your team to win, will definitely remove that brisk, enthusiastic alertness so necessary when you need every point you can get.

IX. PHYSICAL CONDITIONING

To be effective, physical training for the pistol shooter must be realistic and continuous. The objective is to so condition the body that the general health is excellent and that the muscular and nervous system are fully capable of withstanding the grind of match conditions and enable the shooter to fire his maximum scores.

Physical training should be progressive, either in repetitions performed or in the resistance used. Conditioning must remain short of the fine drawn conditions sought by track athletes, as this is generally considered detrimental to good pistol shooting. Violent and strenuous athletics which may result in injuries should be avoided.

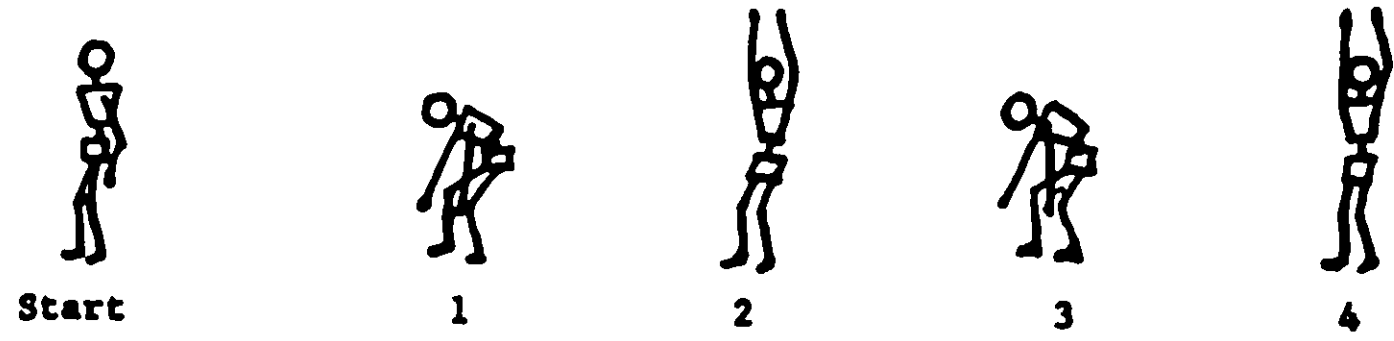
A series of nonstrenuous exercises of the type that require body bending and stretching, deep breathing and moderate muscular tension are best suited toward obtaining a condition defined as body tone and a feeling of well being.

When you exercise go at it with enthusiasm, if you are going to spend the time, get the results your time deserves. Simply going through the motions of an exercise is of no advantage whatsoever. You must put some effort into your exercising. Don't expect that just because you started exercising on Monday you are going to realize an appreciable rise in score by Friday. Physical conditioning is a relatively slow process and the advantages of it are not going to be quickly apparent.

Attached as Annex #1 is a series of exercises that we have found advantageous.

PISTOL TEAM DAILY DOZEN

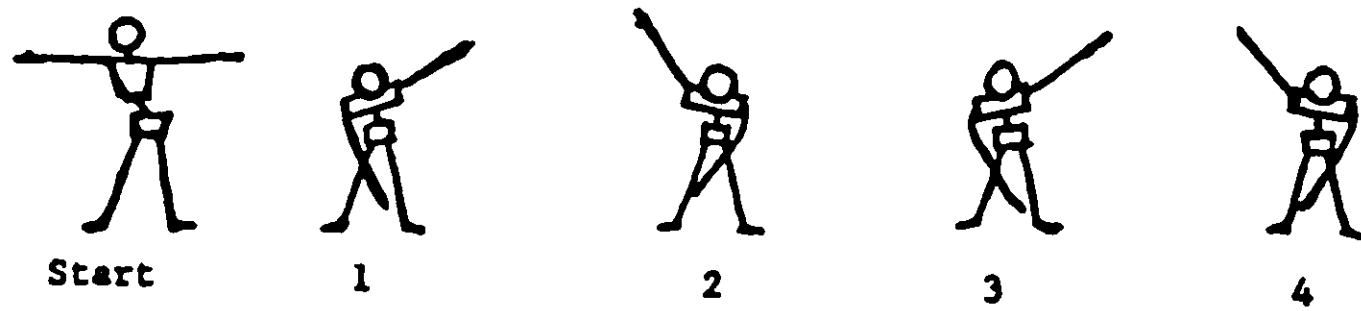
I. WARM-UP



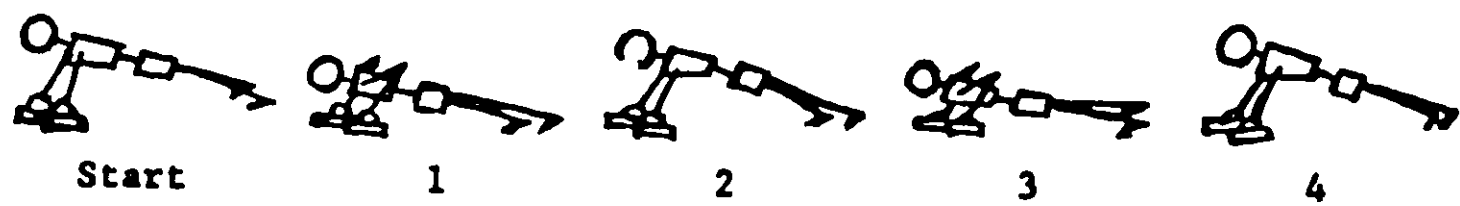
II. CAT STRETCH



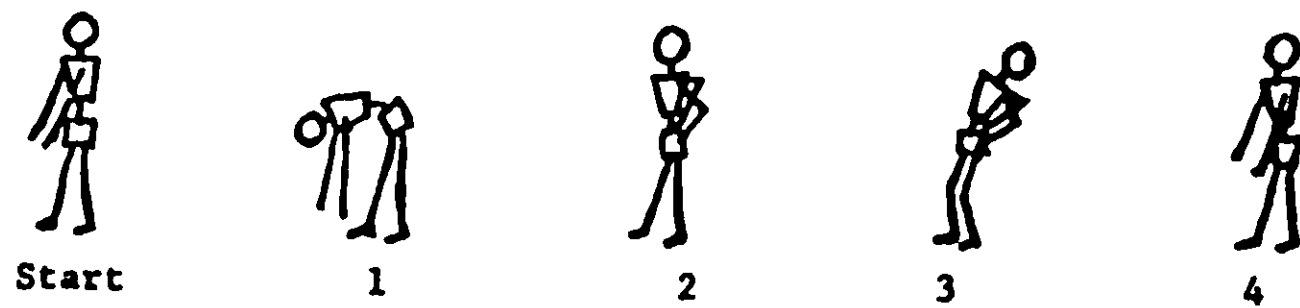
III. TWISTER



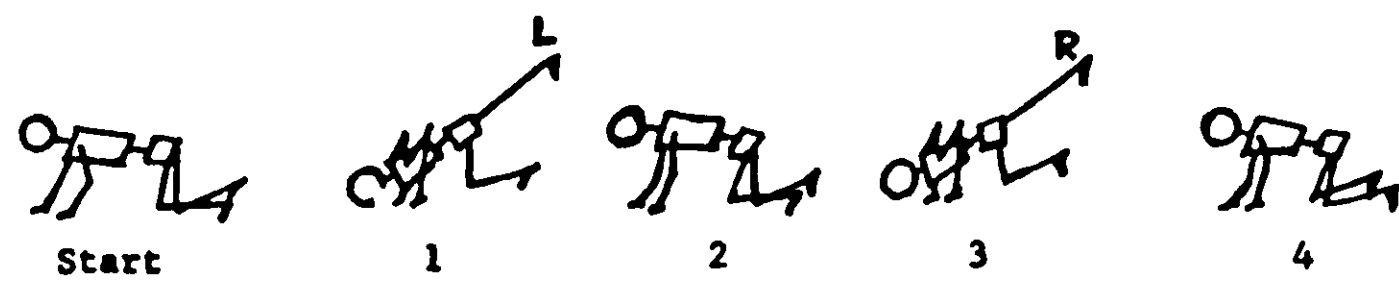
IV. PUSH-UP



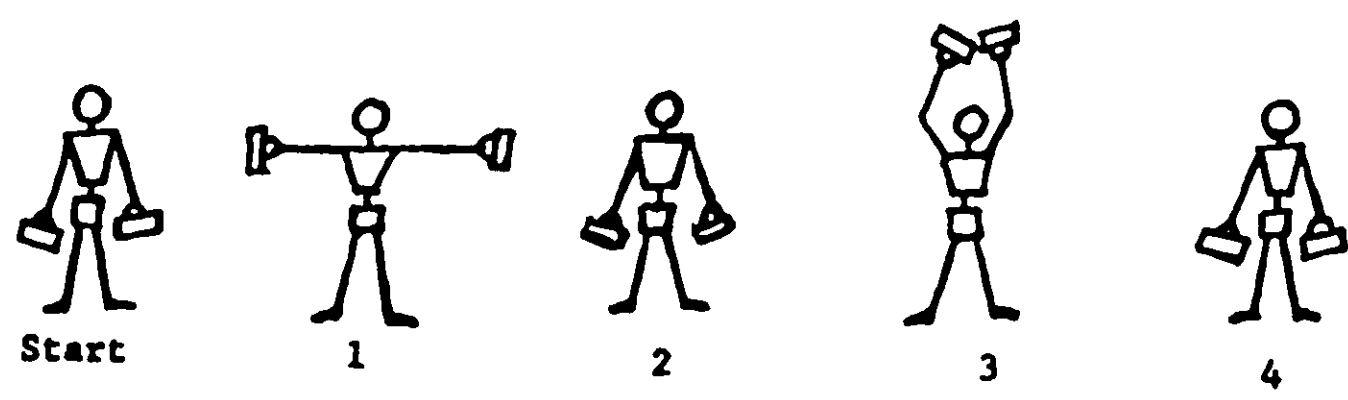
V. BACK BENDER



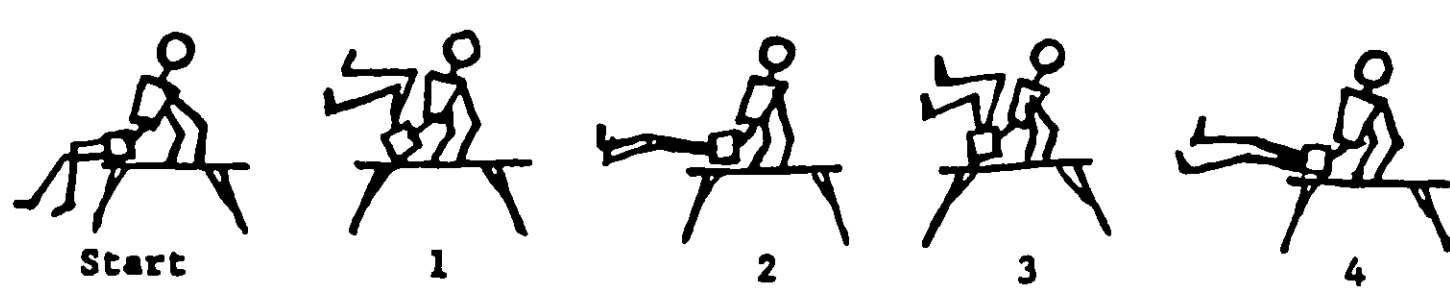
VI. HIP & LEG SPREADER



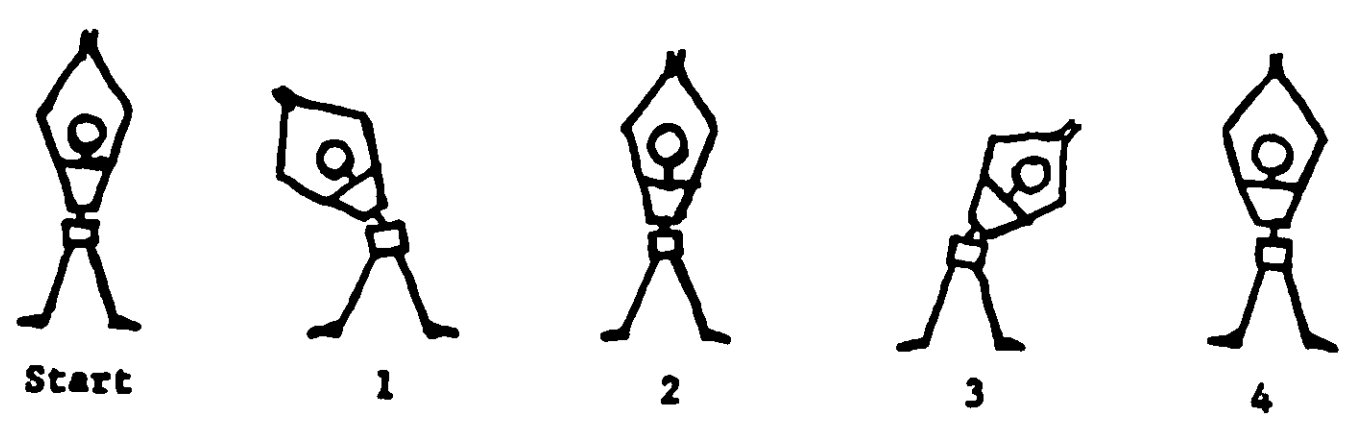
VII. SHOULDER BUILDER



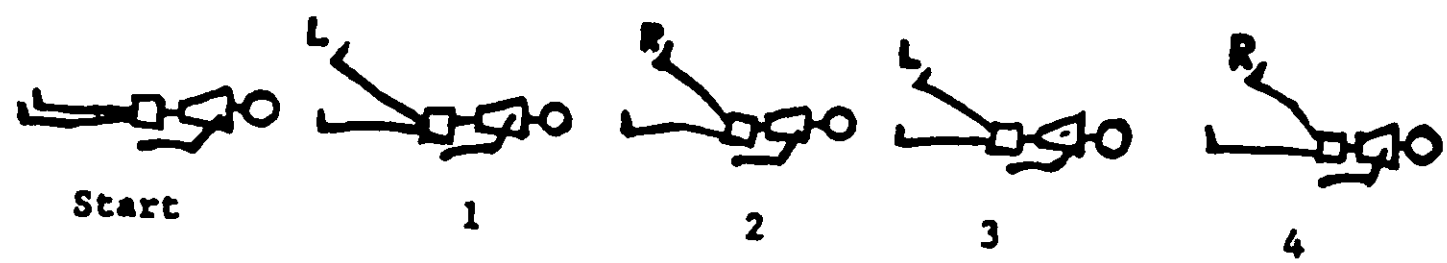
VIII. ABDOMINAL KICK



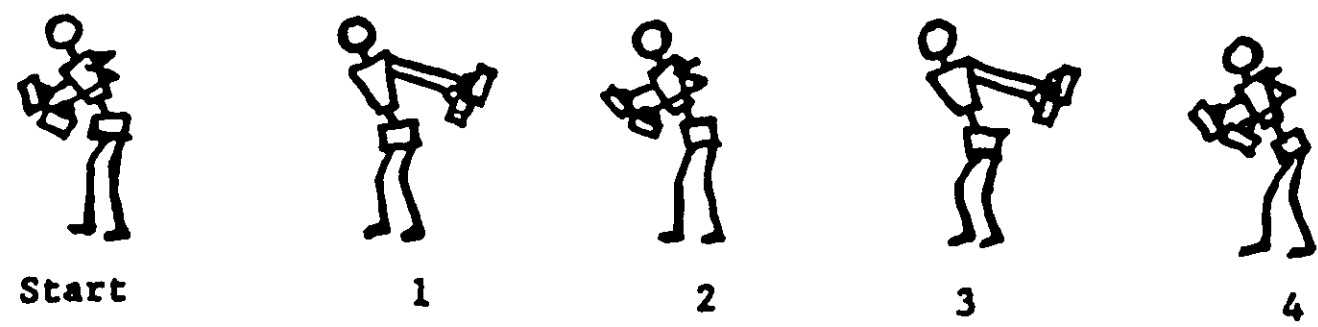
IX. SIDE BENDER



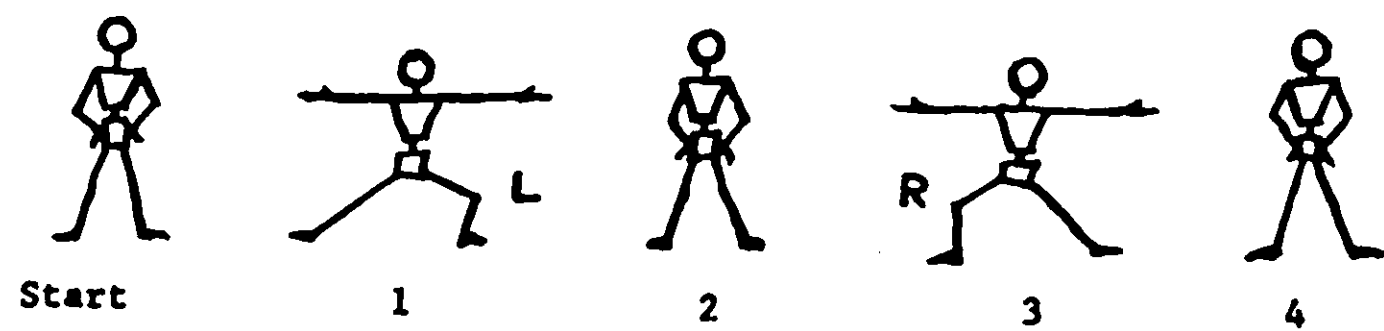
X. FLUTTER
KICK



XI. TRICEP
BUILDER



XII. LEG SPREADER



PISTOL WORKSHEET - SMALL ARMS FIRING SCHOOL

SLOW FIRE WORKSHEET

PREPARATORY (In assembly area)

1. Squadding Proper Relay & Target
2. Using clean weapons - Proper Caliber
3. Proper sight setting (Zeroed)
4. Blacken sights
5. Ammunition, Ear Plugs & Screwdriver

1	2	3	4	5	6	7	8	9	10

PREPARATORY (On firing line)

6. Focus scope on a proper target
7. Dry Fire for natural Position & Grip
8. Adjust ear plugs
9. Ammunition loaded into magazine.
10. Mental Stimulation of Confidence

PLAN DELIVERY OF SHOT (Review Shot Sequence)

11. Extend arm & breathe
12. Settle into minimum arc of movement
13. Pick up sight alignment in aiming area
14. Take up trigger slack - apply initial pressure
15. Maintain sight alignment & minimum arc of movement
16. Start positive trigger pressure
17. Concentrate point focus on front sight

RELAXATION

18. No unnecessary muscular tension. (Relax each major portion of body.)

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DELIVER SHOT

19. Follow Thru-(Continue all control factors)
20. Shot fired as a surprise - (no reflex action)

SHOT ANALYSIS

21. Call Shot - describe sight alignment
22. Compare hit location with call
23. If shot or call is bad, determine cause
24. Watch for formation of error pattern
25. Did shot break in minimum arc of movement?
26. Hold too long?
27. Positive trigger pressure?
28. Benched weapon, why?
29. Lost concentration?
30. Surprise shot break?
31. Worried about results?

POSITIVE CORRECTION (Prompt Application)

32. Include in plan of delivery of next shot.

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COORDINATION OF FACTORS IN DELIVERY OF A CONTROLLED SHOT OR STRING

CONTRIBUTING FACTORS

- A. Intelligence
 - 1. Resourceful
 - 2. Dynamic
- B. Physical Condition
 - 1. Maintained or
 - 2. Jeopardized by:
 - a. Diet
 - b. Alcohol
 - c. Coffee and Tea
 - d. Tobacco
 - e. Drugs
 - f. Hazardous Activities
 - g. Insufficient Rest
 - h. Lack of Exercise
- C. Emotional Balance
 - 1. Motivation
 - 2. Determination
 - 3. Even Temperament
 - 4. Confidence
 - 5. Persistence
 - 6. Imperturbability
- D. Behavior Characteristics
 - 1. Compatible
 - 2. Good Sportsmanship.
 - 3. Neat Personal Appearance
 - 4. Restrained and Stable in Off-Duty Status
 - 5. Fiscally responsible
 - 6. Honest
- E. Team Spirit
- F. Condition and Care of Equipment
- G. Confidence in Inherent Accuracy of Weapons and Ammunition
- H. Adaptation to Weather Conditions
 - 1. Wind
 - 2. Rain
 - 3. Cold
 - 4. Hot
 - 5. Ideal
- I. Coaching Technique
 - 1. Motivated
 - 2. Coach Qualified
 - 3. Organized Training
 - 4. Organized Guidance of Shooter During Match Firing
 - 5. Progressive

COORDINATED EMPLOYMENT OF THE FUNDAMENTALS

- J. Optimum Periods of Application
 - 1. Minimum Arc of Movement (Five or Six Seconds)
 - a. Stance and Position
 - b. Grip
 - c. Breath Control
 - d. All shooters have some degree of movement
 - e. Represents ability to hold
 - f. Anticipatory reflexes change characteristics of movement
 - g. Tension causes over-correction
 - h. Temporary freezing of movement affects trigger control adversely
 - 2. Sight Alignment - Visual Perception (Six to Eight Sec.)
 - a. Point focus on spot on front sight
 - b. Constant correction of errors
 - c. Target out of focus - indistinct
 - 3. Positive Trigger Control (Two to Five Sec)
 - a. Area shooting vs. point shooting
 - b. Trigger release weight reached almost involuntarily
 - c. Timing and coordination of factors necessary to attain rhythm of firing
 - d. Unchanging rate of application of pressure for surprise break of shot
 - 4. Time Interval of Maximum Concentration (Three to Six Seconds)
 - a. Channeled Mental Effort
 - b. Uninterrupted by disturbance
 - c. Shot must be fired during this period
- K. Organization of System of Slow, Timed and Rapid Fire
 - 1. Preparation
 - a. Physical
 - b. Mental
 - 2. Planning
 - a. Shot or string Sequence
 - 3. Relaxation
 - a. No unnecessary muscular tension
 - 4. Shot Delivery
 - a. Follow thru shot sequence - Do not compromise
 - 5. Shot or Group Analysis
 - a. Based on Sight Alignment - Not Sight Picture
 - b. Consider everything seen, heard or thought of during delivery of shot.
 - 6. Positive Correction
 - a. Incorporate into plan for next shot

PISTOL WORKSHEET - SMALL ARMS FIRING SCHOOL

RAPID FIRE WORKSHEET

PREPARATORY (In assembly area)

1. Squadding - Proper Relay and Target
2. Using clean weapons - Proper Caliber
3. Proper sight setting (Zeroed)
4. Blacken Sights
5. Ammunition, Ear Plugs & Screwdriver

1	2	3	4

PREPARATORY (On Firing Line)

6. Focus scope on proper target
7. Dry fire for natural position and grip
8. Adjust ear plugs
9. Ammunition loaded into magazine
10. Mental Stimulation of Confidence

PLAN DELIVERY OF STRING (Review Sequence)

11. Extend arm & breathe
12. Find sight alignment
13. Find aiming area on edge of target frame
(Final deep breath)
14. Settle into minimum arc of movement
15. Point Focus on front sight (partly release breath)
16. Take up slack - Initial pressure
17. Maintain sight alignment & minimum arc of
movement (Target faces)
18. Start positive trigger pressure
19. Concentrate on sight alignment

RELAXATION

20. No Unnecessary Muscular Tension
(Relax each major portion of body)

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DELIVER STRING OF FIVE SHOTS

21. Follow thru and recover with good sight
alignment and central hold on each shot

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SHOT GROUP ANALYSIS

22. Group call. Describe five individual sight
alignments
23. Compare group location with calls
24. If group or call is bad, determine cause
25. Surprise break on each of five shots?
26. First shot on time & rhythm maintained?
27. Did shots break in minimum arc of movement?
28. Positive trigger pressure?
29. Lost concentration?
30. Ignored minor errors in hold?
31. Worried about results?

POSITIVE CORRECTION (Prompt Application)

32. Include in plan of delivery of next five shots

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AN OUTLINE OF THE COMPLETE SEQUENCE OF FIRING ONE ACCURATE SHOT

1. Preparation: In assembly area and on firing line

a. Physical

- (1) Personal Preparation.
- (2) Limbering Up.
- (3) Check Out Firing Line.
 - (a) Protection from Wind and Bright or Changing Sunlight.
 - (b) Smooth and even horizontal surface.
- (4) Fit of Clothing and Shoes (Boots)
- (5) Make Final Check in Assembly Area of all necessary equipment and become aware of firing conditions both weather-wise and in range operation.
- (6) Move to firing line and place equipment on your firing point.
- (7) Set telescope up on your target.
- (8) Make final check of weapon. Check Sight Black. Should be zeroed.
- (9) Check for proper caliber and amount of ammunition and load magazines.
- (10) Check out stance and position for natural pointing at target center.
- (11) Check out grip for natural alignment of sights when incorporating all requirements of a good grip.
- (12) Breathe Deeply for increased oxygen retention.

b. Mental

- (1) Stimulate Confidence.
- (2) Think only of shooting and expel all stray thoughts.
- (3) Let the coach worry about any distractions or interruptions on the firing line.
- (4) Mentally review shot sequence.
 - (a) Think of the act of extending arm and breathing deeply.
 - (b) Think of how your minimum arc of movement looks and feels.
 - (c) Picture properly aligned sights with point focus on front sight.
 - (d) Decide at what point in sequence you are going to take up slack in trigger and apply initial pressure.
 - (e) Here you take final deep breath, exhale, and hold only part of it.
 - (f) Remind yourself to maintain sight alignment and a minimum arc of movement while;
 - (g) Positive, uninterrupted trigger pressure is being applied.
 - (h) Concentration must shift to and remain unbroken on sight alignment while positive trigger pressure is being applied.
 - (i) The pistol will seem to almost fire itself because positive trigger pressure is almost involuntary.
 - (j) The surprise shot is now a possibility because with the employment of positive trigger pressure, the normal reaction time suffices to delay anticipatory re-

flexes that could disturb sight alignment, until all the continuously applied control factors can bring about the delivery of the shot on the target. This is, in effect, follow through.

2. Plan the Shot

a. Stance.

- (1) Stable Balance.
- (2) Immobility.
- (3) Head position.
- (4) Uniformity.
- (5) Position of feet.
- (6) Body erect.
- (7) Shoulders level.
- (8) Legs firmly straight.
- (9) Hips level.
- (10) Head level.
- (11) Rest not-shooting arm and hand.
- (12) Solid, firm shooting arm and hand.
- (13) Center of gravity slightly forward.

b. Natural Position Orientation.

- (1) Start at 45 degree angle.
- (2) Turn only head to target.
- (3) Extend arm.
- (4) Close eyes.
- (5) Raise arm and settle.
- (6) Open eyes.
- (7) Shift trail foot in direction of error if necessary.
- (8) Recheck.

c. Grip.

- (1) Natural sight alignment.
- (2) Firm to prevent shift.
- (3) Unchanging tightness.
- (4) Independent trigger finger.
- (5) Uniformity.
- (6) Comfortable.
- (7) Recoil straight to rear.
- (8) Avoid fatigue of hand.

d. Breath Control.

- (1) Systematic.
- (2) Oxygen retention.
- (3) Minimize movement.
- (4) Respiratory pause.
- (5) Comfortable.
- (6) Concentration Aided.
- (7) Prior to and during fire commands.

e. Sight Alignment (Relationship of front and rear sights - not - sights to target).

- (1) Front sight point focus.
- (2) Rear sight awareness.
- (3) Exclusive concentration.
- (4) 6 to 8 seconds duration.
- (5) Coordination with other control factors.

f. Trigger Control.

- (1) Positive uninterrupted trigger pressure.
- (2) 2 to 5 second duration.
- (3) Based on perfect sight alignment.
- (4) Undisturbed sight alignment.
- (5) Coordinate with optimum perception and minimum arc of movement.

g. Shot Sequence.

- (1) Extend arm and breathe
- (2) Settle into minimum arc of movement
- (3) Pick up sight alignment in the aiming area
- (4) Take up trigger slack and apply initial pressure.
- (5) Take final breath and hold part of it.
- (6) Maintain sight alignment and minimum arc of movement
- (7) Start positive uninterrupted trigger pressure
- (8) Concentrate point of focus on front sight.

3. Relaxation:

- a. No unnecessary muscular tension.
- b. Relax each major portion of body:
 - (1) Neck
 - (2) Shoulders
 - (3) Non-shooting arm
 - (4) Abdomen
 - (5) Back
 - (6) Buttocks
 - (7) Upper legs

4. Deliver Shot:

- a. As planned - Do not compromise. Apply all control factors.
- b. Follow through - continue to apply all control factors
- c. Shot will fire as a surprise - no reflex action

5. Shot Analysis:

- (Use a target center to plot shot calls)
- a. Follow through check
 - b. Call shot - Describe sight alignment
 - c. Compare hit location with call
 - d. If shot or call is bad, determine cause
 - e. Watch for error pattern to form.
 - f. If analysis is vague or unsure, ask yourself some or all of the following questions:
 - (1) Did shot break in minimum arc of movement?
 - (2) Hold too long?
 - (3) Positive Trigger Pressure?
 - (4) If shot could not be fired & shooter benched weapon, what was wrong?
 - (5) Lost concentration?
 - (6) Surprise shot break?
 - (7) Worried about results?

6. Positive Correction: If Necessary

- a. Promptly Applied.
- b. Agreement between coach and shooter.
- c. Incorporate into plan for next shot.

PISTOL WORKSHEET SMALL ARMS FIRING SCHOOL
(TO BE PLACED IN LID OF PISTOL BOX FOR REFERENCE)

SIGHT ADJUSTMENT CARD																							
STANDARD AMERICAN TARGET		SIGHT CAPABILITIES																					
		CLOCKWISE MOVES																					
<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> 25 YARDS EL WIND —○ ○ —○ ○ —○ ○ —○ ○ </div> <div style="text-align: center;"> EL WIND —○ ○ —○ ○ —○ ○ —○ ○ </div> </div>		<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%;"></td> <td style="width: 25%; text-align: center;">ONE CLICK AT 50 YDS MOVES</td> <td style="width: 25%; text-align: center;">BASIC SETTING ELEVATION FR BASE</td> <td style="width: 25%; text-align: center;">WIND FR RIGHT</td> </tr> <tr> <td style="border-bottom: 1px solid black;"></td> <td style="text-align: center;">_____ IN</td> <td style="text-align: center;">_____ CL</td> <td style="text-align: center;">_____ CL</td> </tr> <tr> <td style="border-bottom: 1px solid black;"></td> <td style="text-align: center;">_____ IN</td> <td style="text-align: center;">_____ CL</td> <td style="text-align: center;">_____ CL</td> </tr> <tr> <td style="border-bottom: 1px solid black;"></td> <td style="text-align: center;">_____ IN</td> <td style="text-align: center;">_____ CL</td> <td style="text-align: center;">_____ CL</td> </tr> <tr> <td style="border-bottom: 1px solid black;"></td> <td style="text-align: center;">_____ IN</td> <td style="text-align: center;">_____ CL</td> <td style="text-align: center;">_____ CL</td> </tr> </table>			ONE CLICK AT 50 YDS MOVES	BASIC SETTING ELEVATION FR BASE	WIND FR RIGHT		_____ IN	_____ CL	_____ CL		_____ IN	_____ CL	_____ CL		_____ IN	_____ CL	_____ CL		_____ IN	_____ CL	_____ CL
	ONE CLICK AT 50 YDS MOVES	BASIC SETTING ELEVATION FR BASE	WIND FR RIGHT																				
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<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> BRIGHT —○ ○ —○ ○ </div> <div style="text-align: center;"> AND </div> <div style="text-align: center;"> SUNNY —○ ○ —○ ○ </div> </div>																							

PRELIMINARY PREPARATION CHECK SHEET

ASSEMBLY AREA PREPARATION	FIRING LINE 3 MINUTE PREPARATION
(a) Check Squadding for Relay and Target. (b) Have the Proper Gun & Ammunition. (c) Check the Sight Settings. (d) Carbide Light WITH CARBIDE. (e) Blacken the Sights. (f) Position Ear Plugs or Protectors. (g) Oil Can - check Lubrication. (h) Screw Driver for Sight Change. (i) Stop Watch for Timing. (j) Scorebook. BE READY For Relay to be Called. Look to the Weather. Time Range Commands. Concentrate on Fundamentals. Rehearse Mentally.	<div style="text-align: center; padding: 10px;"> DO NOT HANDLE Weapons Until the Range Officer Gives Clearance to do so. </div> <div style="padding: 10px;"> (a) Set Up Scope ON TARGET. (b) Check Target For Holes. (c) Adjust Ear Plugs. (d) Load Magazines. (e) Recheck Sight Blackening. (f) Check Grip & Position. (g) Locate all Shooting Equipment. (h) Breath Control. <div style="text-align: center;"> <u>RELAX PHYSICALLY</u> Continue Mental Processing THINK POSITIVELY Act Aggressively YOU - ARE - READY !!! </div> </div>

PISTOL WORKSHEET SMALL ARMS FIRING SCHOOL

DATE						LOCATION				AMMO CALIBER						WIND				LIGHT				
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DATE						LOCATION				AMMO CALIBER						WIND				LIGHT				
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* PAGES FROM THE SCOREBOOK

PREPARE TO SHOOT

PLAN SHOT

RELAX BEFORE

DELIVER SHOT

ANALYZE SHOT

CORRECT SHOT