

# COMMON FIRING LINE ERRORS

It's a lot of trouble to buy a rifle, ammo, maybe travel a long distance, and lay out in hot and cold weather - so you should *want* to have that shot impact COT [Center of Target]. Therefore, watch out for these common errors, and you'll be ahead of the game:

**#1: Failure to keep eyes open when the rifle fires** to 'call' your shot. To know where the shot just went, you need to take an instant mental photo of where the front sight was when your rifle went off. If you don't, you lose the informational value of feedback from that shot - and you're almost certainly flinching and/or jerking the trigger. So, keep that eye open - call the shot based on the position of the front sight on the target when the rifle fired, and watch for bullet splash downrange for confirmation of your call.

**#2: Failure to pull rifle back into shoulder.** One of the leading causes of trigger jerk, bucking, and flinching is fear of recoil, and the impact of the rifle on the shoulder. If you come away from the firing line complaining about recoil, or a 'sore' shoulder, if you're shopping for a rubber buttpad, this one is what you are doing wrong - and it WILL lead to flinching. So grab the pistol grip firmly and pull the rifle back into your shoulder while you fire the shot, with your cheek firmly pressed down on the stock - so you 'roll' with the recoil. A side benefit: extra pressure of the trigger hand on the stock will give the perceived impression of a 'lighter' trigger, a definite 'plus'.

**#3: Failure to get NPOA.** "Natural Point of Aim" has been said to be the one factor which separates the riflemen from the 'wannabees'. If you don't get your natural point of aim, your shots will be to one side or the other of the target, *even if fired perfectly*, because your body is out of position, and you have to muscle the rifle onto the target. A rifleman takes position so that his rifle, with his body relaxed, is pointing at the target. He doesn't have to fight muscle strain and he makes his job of firing the shot a lot easier - and his shots will be on target.

**Get your NPOA** by lining up on the target with your sights, closing your eyes, relaxing your body, taking a deep breath in and letting it out. Open your eyes and shift position *using your forward elbow as a pivot* to bring the sights back on the target. Repeat until when you open your eyes, your sights are on the target. Once you establish your NPOA, *keep it* by not moving that forward elbow supporting the rifle [prone] or keeping your feet in the same spot [all other positions].

**#4: Failure to pull 'trigger' leg up tight behind trigger arm to absorb recoil and generally tighten position** [prone position]. Try it and you'll see your front sight settle down like it should. Grasping the forearm with the non-trigger hand and pulling slightly back

into the shoulder may also help. (First learn with your hand as a relaxed platform before you try the slight pressure option.)

**#5: Failure to maximize your feedback.** Shooting is *always* learning, and *every shot you fire* should be a learning experience. If you screw a string of fire up so badly you are ashamed of yourself, you keep shooting with those educational purposes in mind. It's not those *last* shots that count; it's the *current* shot that counts. Make *each* shot a 'sighter', and *apply* the 'numbers' to firing that shot.

**#6: Failure to 'follow-through'.** By the time you think "Follow-through" as you hold the trigger back after the shot, this step in 'Firing the Shot' is done. But don't overlook it, because you need to do it, so you don't inadvertently relax and move before the bullet clears the barrel.

**#7: Failure to keep the front sight on the target.** The most important step in "Firing the Shot". Ignore this, and you might as well be shooting blanks. This is a 2-part step: physically focusing your eye on the front sight, and firmly focusing your mind - your concentration - on 'keeping that front sight on the target'. Whatever else you do, you *must* do this for the shot to hit COT. Talk to yourself. Keep up a mantra: "Keep that front sight on the target, Keep that front sight on the target, Keep..."

**#8: 'Flinching', 'bucking' or 'jerking the trigger':** *Flinching* is anticipating recoil by an abrupt backward motion of your shoulder to get 'away' from it. *Bucking* is anticipating recoil by shoving your shoulder forward to 'make up' for or 'resist' the impact. *Jerking* is snapping the trigger quickly to get the disagreeable experience over with as soon as possible.

All three'll throw your shot off target - in fact, ANY ONE of them is GUARANTEED to throw your shot off the target. All three (usually lumped under the generic *flinching*) are natural responses to your body's dislike of sudden impacts.

You have to work to control your body so the rifle is not disturbed by any movement at the time the hammer falls.

You do this in several ways. One is to eliminate the recoil impact by pulling the rifle snugly back into your shoulder, so that there is no impact, and you simply ride the 'push' of the recoil. If you don't pull it back tightly into your shoulder, the rifle has time to pick up speed and slam your shoulder, and you start to flinch, buck or jerk the trigger in response. So pull it back into your shoulder, keep your cheek firmly pressed into the stock, and you'll do OK.

Second, keep your eyes open so you can take that instant mental photo of where the front sight was on the target at the instant of firing. If you can't do this, you know you are guilty of flinching, bucking, or jerking.

Third, concentrate on keeping the front sight on the target. Pulling the trigger is not the main task - No! Keeping the front sight on the target is the main task. So practice until that trigger finger is 'educated' to take the slack up and steadily increase the pressure when the front sight is on the target, 'freeze' when the front sight drifts off the target, and continue the squeeze when the sight is back on the target. You'll have to do this in the 6-10 seconds you're holding your breath. If you don't fire the shot in that time, simply relax, take a deep breath and start over. [Trigger finger tips: middle of the pad of the first joint, or the first joint itself, should be where the trigger touches the finger. Keep the finger clear of the stock ('dragging wood') as it will throw your shot off. Visualize a straight pull back, not to the side.]

You can avoid dragging out the shot by starting early getting used to firing each shot in 'rapid' cadence - about a shot every 3 seconds.

Even the best riflemen can develop a flinch, so periodically do 'ball and dummy' drill to test for one. Then use 'ball and dummy' until you are 'cured' (but remember the cure will rarely be permanent, so you periodically recheck). Twenty rounds should suffice for both the detection and the cure. Have a friend 'load' and hand the rifle to you [make sure all safety precautions are observed!] either with or without a round in the chamber.

Usually, he will start off with a live round to 'juice up' any tendency to flinch, and then give you an empty one to see if there is movement in the muzzle when the hammer falls. He continues with 'empties' until your muzzle doesn't move. Then he feeds a live one followed by more 'empties' - actually, he is trying to 'smoke out' your flinch and get it to show itself. He continues until he is convinced that your flinch is gone. Along the way he will watch your aiming eye to make sure it stays open when the rifle goes off.

**#9: Failure to use your sling** - For over 100 years, the sling has been in military use as an aid to marksmanship. Because of the tendency of the M16 barrel to flex under sling pressure, the sling has been slighted in the last few decades. But make no mistake: *the sling is one of the biggest aids to accurate shooting* that you have, and you always have it with you, to carry the rifle. So, never fire a shot without the sling. Use the hasty sling for standing and anytime you're in a rush, or may need to move fast after firing a shot; and use the loop sling for prone and sitting when you have the time, but try to make sure your upper arm is padded to block muscle tremor and heartbeat, either with a shooting jacket or heavy clothing. It's hard to put a number on how big a

factor in accuracy the sling is: a MINIMUM of 20%, going up to 80% or more. It will help in rapid fire, keeping your position tight, speeding your recovery for the next shot. The bottom line is, ALWAYS USE YOUR SLING - IN EVERY POSITION, FOR EVERY SHOT. Either *loop* or *hasty*.

**#10: Failure [sitting position] to put both elbows in front of both knees** - If you've been to the range much, you've seen a new shooter trying to shoot sitting - with that trigger elbow up high in the air, almost like he's shooting standing, totally ignoring that nice big fat knee, as steady as a bench and less than a foot away. The shot will be much better, with that trigger elbow down on the front of the knee, where it belongs (NOT on top, where recoil will knock it off, slowing recovery time). And that other elbow, the one under the rifle? Hunker forward and drop that sucker on the target side of its knee - again to resist recoil. A good sitting position will initially break your back until you get stretched, but once everything falls into place, you can shoot nearly as good as you do off the bench! Don't sell the position short, especially if you are on a downward slope and need to shoot over grass.

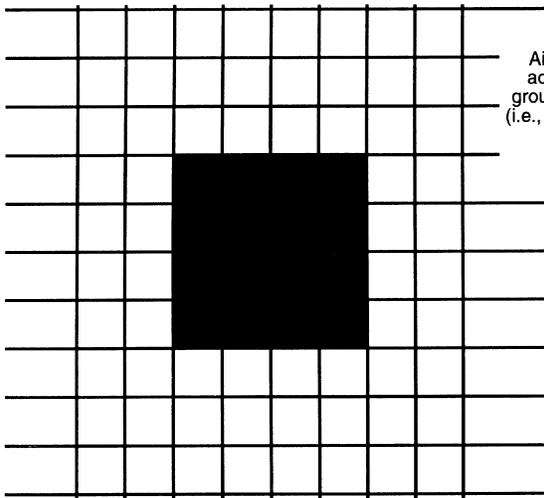
**#11: Rushing the shot when you 'run out of breath'** - Once you're in your respiratory pause, you need to fire the shot before you start needing to take a breath. The problem when breath starts running short is, do you fire the shot or not? Most times - if you have the time - the answer is *'don't force the shot'*. Relax, take a *deep* breath, and start the shot over. In the early stages of firing the shot by the numbers, where you are really trying to concentrate on the front sight, your trigger finger will seem recalcitrant, and you will have to recycle, maybe several times, before you get the shot off. But don't get frustrated. You are learning the basics, and learning to do them right. As you get better, you'll find less and less problem with this aspect of firing the shot. If you start early getting into the 'rapid' cadence, this one won't be a problem.

**#12: A big failure is to go to the range without a goal.** Your goal should always be to improve your shooting, and come away from each session on the range a better shot. And you do that by firing the Army Precision Combat Rifle Qualification Course - the AQT - which Fred's has reduced to 25m for speed and convenience. Those in the know at RWVA who've fired the full course at 100, 200, 300 and 400 yards will tell you - *"the course at 25m is harder!"* And it is. If you can conquer it, *you'll have no problem at the full distances*, once you get zeroes, and can *estimate range*.

# 25-Meter Drill Targets

[82 ft.]

These drills will make you a better shooter!



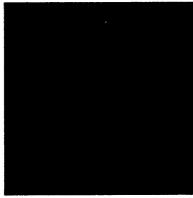
1/4" grid = 1 MOA grid  
Aim 6 o'clock on square,  
adjust sights so center of  
group is on center of square.  
(i.e., 2 MOA above Point of Aim  
[POA])

## 1-Round Drill - Position and NPOA

Fire 5 successive shots on this target from prone or sitting. In between each shot, break your position, stand up, and then, after loading another round (safety 'on'), quickly re-assume the position and reacquire your NPOA, and fire another round. After 5 rounds, check the target. If you are doing everything

right - position and NPOA reacquisition - your group should be under an inch. (This assumes you can already regularly keep your groups at 25 meters to an inch or under. If you can't do it, practice the basics until you can.)

Alternative drill: 5 rounds as before, single-loaded, but stay in position.



## 2-Round Drill - Mag Change

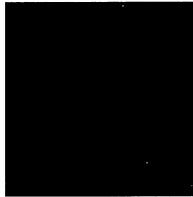
Practice in smooth mag changes without disturbing position or point of aim (NPOA).

Take up a prone or sitting position and load with one round in your mag. Fire a round. Reload with another single-round mag. Repeat three more times. Check our target to verify your ve-round group is under 1-inch. If it is, now you repeat the drill, to practice chang-

ing mags smoothly and rapidly.

If it is not under an inch, you are probably losing position or NPOA in the mag change. Practice, making sure you observe all the position requirements, and verify your NPOA reacquisition, until you group under an inch, consistently.

**Persistence** - without it, you never get where you want to be.



## 4-Round Drill - Fast Cadence Test

Practice in changing mags without disturbing your position, and practice/verify firing the first shot out of each mag in 'rapid fire' mode, not 'slow fire' mode.

With two mags, each with two rounds, from prone sitting. Reload and fire the first two rounds. Check the target. All four shots should be in the same sub-1-inch group.

If they are not, but the drill is OK, chances are

you have one or two shots 'out of the group', and that these are the first rounds out of each mag. In other words, you are firing the first shots out of each mag at a slow-fire cadence, and the second at a rapid-fire cadence. You want to practice this drill, focusing on a rapid-fire shot out of each mag, until the group size is under an inch, and placement of all shots is in the group.

Note: A Rifleman fires **every** shot 'rapid'.



## Ball & Dummy Drill

The 'ball and dummy' drill works because you do not know for sure whether a round is actually loaded when you pull the trigger.

Have a friend 'load' either a live round or nothing) and hand you the rifle, keeping the muzzle pointed in a safe direction, or mix dummy and live rounds in the mag, so you don't know what's next in the mag.

Fire five shots, which means you'll 'fire' at least five or more 'dry' shots while getting the live ones off. When you are done, compare the size of the group with your groups above. If it is significantly smaller, you probably have a flinch, which you cure with more 'ball & dummy' until the rifle is perfectly still when you 'fire' a dummy/empty rifle.



# HOW TO FIRE THE SHOT

## 1. GET INTO POSITION

Start with the prone position because that is where you normally sight-in, and sighter shots are usually the first shots you fire when you shoot. It is also the steadiest position, once you get used to it - but also a real muscle-stretcher. **Be ready to try prone a few times before it really gets comfortable.** Just have a little patience, get the early 'adjustment' behind you so you can get to the real shooting - that is, 'firing the shot'. Best way to do this is to practice at home before you ever come to the range - just lie down, get a good prone position with this checklist, and 'dry fire', going thru each of the six steps in firing the shot until you have 'em down cold. Save that valuable range time for real shooting! P.S. The Rifleman **NEVER** shoots off the bench.

**Prone Checkpoints:** ✓ **Trigger hand** should have a firm grip on the stock and pull it back smartly into the shoulder. ✓ **Trigger finger** should contact trigger on the middle of the end pad of the finger or at the first joint, and the finger should be curved so that it clears the stock at all points. ✓ **Your cheek** should be pressed firmly against the stock.

✓ **Arm holding the rifle up:** ✓ **Hand** initially should be relaxed and not grip the rifle - simply a platform on which the rifle rests. Later, after achieving Rifleman, you may want to try lightly gripping the rifle and pulling it back into the shoulder. Standard instruction in highpower rifle shooting says this hand should be relaxed, not grip the rifle, and be a 'platform' on which to rest the rifle. But in field shooting, your sling will not be as tight as it is on the firing line, and you will find that a slight positive grip helping that trigger hand pull the rifle back into the shoulder will steady up the rifle.

✓ **The sling** should be adjusted so it just supports the weight of the rifle; i.e., tight, but not so tight you are really hurting. If the rifle will stay in your shoulder while supported only by the forward hand under the forearm and the sling, without any help from your trigger hand, it is tight enough. ✓ **The elbow** should be as close to vertical under the rifle as possible. A check: take a deep breath in; let it out, and watch the front sight: if it dips and rises vertically - good! If it dips and rises on a slant, you're not there yet - get the elbow under the rifle [it may take several times at the range before you are successful on this - but have patience - it will come!]. Then ✓ **get your NPOA** [See 'Common firing Line Errors' #3], repeating the process of acquiring it until you open your eyes and the sights are lined up on the target. Follow the "Goldilocks' Rule" [not too tight; not too loose; everything just right]:

Everything should be tight, but not so tight that muscle tremor, fatigue or severe discomfort results. After the initial adjustment period is over, this position should be comfortable - if it is not, you are doing something wrong, and need to go back and review the basics. Now we are finally ready to

## 2. FIRE THE SHOT

■ **1. Line up the front and rear sights.** Simply center the front sight in the rear sight (a scope does it automatically for you). (*Sight Alignment*)

■ **2. Keeping the sights lined up, bring them onto the target.** Most people set the target on top of the front sight like a 'pumpkin on a fence post'. (*Sight Picture*)

■ **3. Take a deep breath in.** The front sight will dip. Let your breath out, watching the front sight rise until it barely touches the bottom of the bull's eye - now **hold your breath** (*Respiratory Pause*). Use a natural act - breathing - to establish your correct elevation. (*Now's* when you get your NPOA!)

■ **4A. Focus your eye on the front sight.** It may be a little hard to do at first - you naturally want to look at the target - but focus on the front sight. This will be hard for some shooters past 40, and some may need to switch to a scope because of inability to focus on the front sight.

■ **4B - Focus your MIND on "keeping that front sight on the target".** This is the most important one on this list. Do it - or miss!

■ **5.** Now the only tricky part. While you are doing step 4, **take up the slack and squeeze the trigger straight back - but keep your concentration on the front sight!** Don't let the front sight wander off the target. You are trying to do two tasks at once, and the more important is to **KEEP THE FRONT SIGHT ON THE TARGET!** This is where practice pays.

■ **6.** When the hammer falls: 1) **keep your eyes open,** 2) **take an 'instant' mental photo** of where the front sight was on the target when the hammer fell (*Call the Shot*), and 3) **hold the trigger back** (*Followthrough*). In field shooting you want to quickly observe the impact of the bullet on the target and the target reaction. If the shot is a miss, try to spot any bullet splash so you can correct the next shot.

Now **RELAX** and enjoy the shooting. Keep at it and the positions will actually become comfortable - and 'by the numbers' will become automatic! Trust me.

Practice until you can consistently group 1" or less at 25 meters (82 ft).

Periodically do "ball & dummy" to detect and correct flinching.

**Shoot Smart - Shoot Safe!**

From 25 meters, with your sights 2 MOA above POA, to get your 200 yard zero, come up 1 MOA. To get your 275 Battlesight Zero, come up 3 MOA.

For 300 yards, come up 4 MOA from 25m.

For 400 yards, come up 7 MOA from 25m.

For 500 yards, come up 11 MOA from 25 m.

Always confirm the zeroes at actual distance, if possible.

## THE REVOLUTIONARY WAR VETERANS ASSOCIATION

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