



An RWVA Applesseed Primer

This primer is designed to facilitate learning while attending an RWVA Applesseed Shoot. Each participant should know these Rifleman basics.

As a Rifleman, you are presumed to be a **safe and conscientious shooter**, familiar with all safety rules. You don't do anyone any good if you shoot yourself or an unintended target. Here are the Safety rules:

1. The prime rule: **Always keep the muzzle in a safe direction!** Follow it without fail.
2. **Do not load until given the "Load" command.**
3. **Keep your finger off the trigger** until the sights are on the target.
4. **Make sure those around you follow the safety rules.** You, along with everyone else are range safety officers.

The Six Steps to Firing a Shot

1. **SIGHT ALIGNMENT** -- Line up the front and rear sights: Simply center the front sight in the rear sight.
2. **SIGHT PICTURE** -- Keeping the sights lined up correctly, bring them onto the target
3. **RESPIRATORY PAUSE** – As you breath the front sight will pass vertically through the target. Use the natural act of breathing to adjust your vertical alignment. Breath deep, slowly exhale, and pause.
- 4A. **FOCUS YOUR EYE ON THE FRONT SIGHT:** It may be a little hard to do at first, as you naturally want to look at the target. But keep your eyes focused on the front sight, even if it means that the target gets blurry.
- 4B. **FOCUS YOUR MIND** – Keep front sight on target: Your concentration should be on “keeping that front sight on the target”. It may help for you to consciously repeat, “front sight on target, front sight on target.” This is the big one!
5. **TRIGGER SQUEEZE** – Squeeze straight back while front sight stays on target: While you are doing both parts of step 4, you'll take up the slack and squeeze the trigger straight back. At the same time, you **MUST** keep your concentration on the front sight! Don't let the front sight off the target; if it does move off target, gently bring it back on target, while continuing to squeeze the trigger. The discharge should *surprise* you.
6. **FOLLOW THROUGH** – Call the shot and feel the trigger sear: With your sighting eye open, take mental picture of *where* the sights were when rifle discharged, If you can't “call the shot”, you won't ever be able to tell whether the shot was bad because *you* did something wrong. Next, feel the trigger sear reset and/or hear the trigger sear reset. Now you're ready for the next shot. Back to step one.

NPOA (Natural Point of Aim)

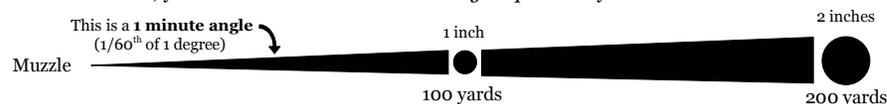
A Rifleman takes his shooting position so that his rifle, with his body relaxed, is pointing at the target. He doesn't have to fight muscle strain and he makes his job of firing the shot a lot easier. Best of all, his shots will be on target, accurately and consistently, because he's not fighting his body's natural position.

Here's how to obtain your NPOA:

1. Close your eyes, relax your body, take a deep breath in and out.
2. Open your eyes and check your sight picture. 9 times out of 10, your sight picture will have changed, because your body is now relaxed.
3. You'll now reestablish your sight picture by making slight adjustments in your position. If you are in the prone position, you'll shift position pivoting around your forward elbow to bring the sights back on the target. In other positions, you will make whatever small adjustments in your position so that the rifle points naturally at the target.
4. Repeat until you've obtained your NPOA

MOA (Minute of Angle)

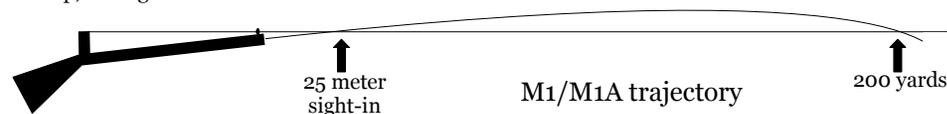
Degrees and *Minutes* are measurements of angle. There are 60 minutes in one degree. While 1 degree is a very tiny angle, one minute is only 1/60th of that. And by coincidence, one Minute of Angle(MOA) is 1 inch **per** 100 yards. Hence, one MOA at 200 yards is 2 inches, one MOA at 300 yards is 3 inches, and so on and so on. Think of a very long ice cream cone, one designed for a 1 inch scoop of ice cream. Imagine it stretching out of the muzzle all the way down to your target, one hundred yards away. The imprint of the cone on the target would be a one *Minute of Angle* circle. If you could fire all rounds within that circle, you would have shot a *one MOA group* at 100 yards.



Inches, Minutes, and Clicks (IMC)

Understanding the relationships of inches, minutes, and clicks is paramount when attempting random range shots. If one learns the concepts of IMC, one can easily determine the proper sight setting, or hold over, for any known distance.

As a bullet leaves the barrel it immediately begins to drop. The further it goes, the more it drops. The path of a bullet makes a low angled arc. This arc crosses the shooters line of sight twice. Once close up, and again much further out.



Sighting in at 25 meters: If you are sighting in your rifle at 25 meters and you missed the bull by 1 1/2" to the right and 3/4" high; You would move windage 6 clicks left and elevation 3 clicks down. Using an M1/M1A, **One click is one MOA and 1 MOA equals 1/4" at 25meters/yards.** And when sighted in at 25meters, you are also sighted in at 200 yards.

Come ups: Most military .30 caliber rounds are pretty much the same out to 500 yards. Learn the trajectory for one, and you can do pretty well with any military .30 caliber. For those of you using either a Garand or M1A, your trajectory studies are pretty simple. Just memorize the following *Come-ups*: 3, 3, 4, 4, 5 (100-600yds). These numbers represent how many clicks up you have to make with an M1/M1A to compensate for trajectory. Example: If you are sighted in at 200 yards and your target is at 400 yards, you would raise your sight 7 clicks (add 3 clicks to go from 200-300, plus 4 more clicks to go from 300-400). Example 2: If you are sighted in at 200 yards and your target is at 600 yards; you would raise your sight 16 clicks (3+4+4+5).

Battle Sight Zero is sighted in at 275 yards or 250 meters(25 meter sight in plus 2 clicks).Its function is to give you a simple sight setting for most battle situations. If your target is at 400 yards and you aim center of mass you'll hit 5 MOA (5 clicks) low ; $5\text{MOA} \times 4" = 20"$. At 400 yards that's just below the belt on a human target. So aim a little higher and you'll be right on. If your target is at 200 yards, you'll hit 2 MOA (2 clicks) high; $2\text{MOA} \times 2" = 4\text{ inches @200 yards}$.