VIRTUAL RANGE TARGETING™

The Long Distance Training Solution target has two options for the grid in either MilRadian (MRAD or MIL) or Minute Of Angle (MOA). Each "cell" in the grid is measured at .1 MIL or .36 inches square for MIL and .25 inches square for MOA. Each RED line represents a full MIL (or full MOA), colored red for easier readability when counting MILS and MOA. Additionally, black hash marks are place at the .5 MIL locations on the MIL grid (only), again, for quicker acquisition of elevation and/or windage adjustments.

ZERO & PRACTICE

Description:

Lane 1 is comprised of a series of same-sized bullseyes stacked vertically on the page. They are labelled as P0 through P7. Each bullseye measures 2 inches in diameter, with a center ring measuring 1 inch. This represents a 2 MOA target at 100 yards, with a 1 MOA inner ring. This size will help determine the accuracy of a shooter. Furthermore, in this section ONLY, the grid is seen on top of all targets, aiding in the accurate zeroing of your scope.

As a BRIEF summary of MRAD and MOA, they are both ANGULAR measurements that result in a relative size at specific distances. MOA or Minute Of Angle is the angle you would have if you divided a circle into 21600 equal slices. Each slice is a Minute of Angle. If you project that angle out at a rifle range, it turns out that it would equal ABOUT 1 inch at 100 yards. The actual measurement is 1.0472 inches at 100 yards.

Now, think of it like a flashlight. The cone gets bigger the further away you try to shine it. By 200 yards, 1 minute of angle is now measured at ABOUT 2 inches, and so forth. So, at 1000 yards, your single Minute of Angle is now 10 inches. The theory goes, if you can hit a 1 inch target at 100 yards, you should be able to hit a 10 inch plate at 1000 yards. Easier said than done, but that's the fun of shooting. This is what shooters refer to as 1 MOA accuracy.

A MIL or Milliradian is also an angular measurement, or a slice of a circle. That angle projected out to 100 yards gives you a measured size of 3.6 inches. A .1 Mil measures to .36 inches, which is how we set our MIL background grid. Moreover, if your scope is a MIL scope, each CLICK of the

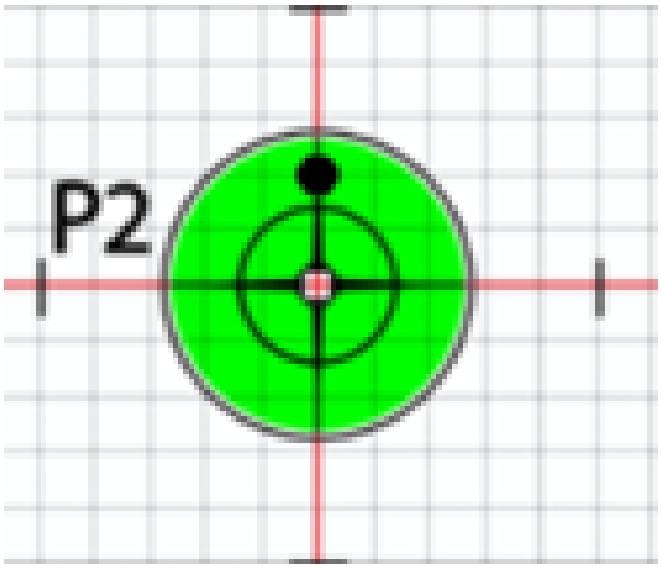
turrets represent 1/10th of a MIL, or .36” at 100 yards. If you have an MOA scope, each CLICK represents a ¼ inch at 100 yards. If you were shooting at 1000 yards, 1 MIL CLICK is 3.6 inches, and 1 MOA CLICK is 2.5 inches.

The bullseye at the bottom (P0) is centered on the horizontal “100 yard Zero Reference” line. Each subsequent bullseye going vertically will fall on a **FULL MIL** or **FULL MOA** line. P1 is on the 1MIL line, P2 on the 2MIL line, etc. For the MOA version, P1 is on the 5MOA line, P2 is on the 8MOA line, and so forth.

Recommended uses:

1. Zeroing your rifle / scope - A zeroed rifle means that when you turn your elevation and windage turrets to their ZERO value, you should be able to hold the crosshairs over a target at 100 yards and hit it dead center. If your turrets are turned to 10 and 20 (the number doesn't matter, just not ZERO), and you put the crosshairs over a target at 100 yards, and you hit dead center, your rifle is NOT zeroed. The turrets must read zero AND you must be able to hold crosshairs over intended impact at 100 yards. Follow your scope's manufacturers guidelines on "Zeroing Your Turrets" for more information.

Getting back to the intent of this lane, if you want to zero, or verify your zero, you can use any of the targets in this lane. Since we have placed the grid lines on top of the bullseyes (ONLY in this lane), you will have an exact measurement of missed shots to set your zero. In other words, if you miss the target high by 2 grid lines, you know that you are .2 MIL (or 2 clicks on an MRAD turret) high, as shown in this example.



2. General target shooting at 100 yards to test and verify the shooter's accuracy. Use each target to do 5 shot groups to see how your accuracy improves.

3. Introduction to Elevation adjustments using your scope turrets. From this point forward, we are assuming your rifle is zeroed at 100 yards. That means that your turrets are set to zero, and when you put the crosshairs or reticle center on a target at 100 yards, you will hit that target. We will also, from this point forward, use the example of a rifle outfitted with a MIL scope.

This begins the first in a series of "lessons" on using your scope to shoot long range. The process of learning how your scope adjusts, how it reacts, and how it affects the trajectory of the shot can be learned by practicing in this lane.

To begin, we have two "sections" apparent in the 1st, 3rd, and 4th lanes. There is a thick delineating line that separates the bottom row of bullseyes, which are the Point Of Aim (P.O.A.) targets, from the targets above the line, which are the Point Of Impact (P.O.I.) targets. As the names suggest, to learn to use your scope adjustments to "dial" in the elevation for long shots, in this exercise, you will AIM at the bottom targets but IMPACT the targets ABOVE the delineating line. Which targets you IMPACT will be determined by your scope elevation adjustments.

For example, as we have assumed that your rifle is zeroed properly, if you dial your elevation turret to 1MIL (10 clicks), and AIM at the bottom P0 target and fire, you will hit the P1 target. If you dial your turret to 2MIL (20 clicks) and AIM at P0, you will hit the P2 target, and so on.

In these two examples, each P.O.I. target represents a yardage that your rifle will impact if you were to take it to a longer range. (P1 represents 311 yards. P2 represents 438 yards. You will see how and why in later lane discussions, and with the introduction of a "D.O.P.E." (Data On Previous Engagement) card. But don't worry about that now.

How does this work? When your scope is zeroed properly, and the turrets are set to zero, at 100 yards, where you aim is where you hit. When you dial UP for elevation (shooting a target farther away than 100 yards), as in the previous example, the internal reticle inside the scope will actually need to shift down. In other words, if you turn your turret to 1MIL, the reticle will be lowered 1MIL. To compensate for that, you raise the barrel of the gun. This allows the bullet to travel further down range. When you AIM at the bottom target, you have now ELEVATED your barrel 1MIL, which is why you will hit P1.

In the real world, if you are shooting, say, to 500 yards, you will need to elevate your barrel quite a bit to get that bullet all the way out there without impacting the ground too early. So you dial UP your turret. How MUCH to dial will be covered in other lanes, but as you may have already guessed, one of those green targets is close to that “500 yards”, giving you a glimpse at how much you will have to dial. For now, you can use this lane to practice the effects of dialing to full MIL settings to hit various targets.