# 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 0.1 MIL or 0.36 inches square for MIL and 0.25 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 0.5 MIL locations on the MIL grid (only), again, for quicker acquisition of elevation and/or windage adjustments.

## ZERO & PRACTICE

**Description**

The ZERO & PRACTICE Lane 1 is comprised of a series of same-sized bullseyes stacked vertically on the page, 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, with a 1 MOA inner ring at 100 yards. This size will help determine the accuracy of a shooter and the amount of zeroing offset needed for a perfect zero. The grid is seen on top of Lane 1 targets, aiding in the zeroing of your scope.

As a brief summary, MIL and MOA are both angular measurements that result in a relative size at specific distances. MOA or Minute Of Angle is an angular measurement, used in shooting, that represents 1/60th of one degree. 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.

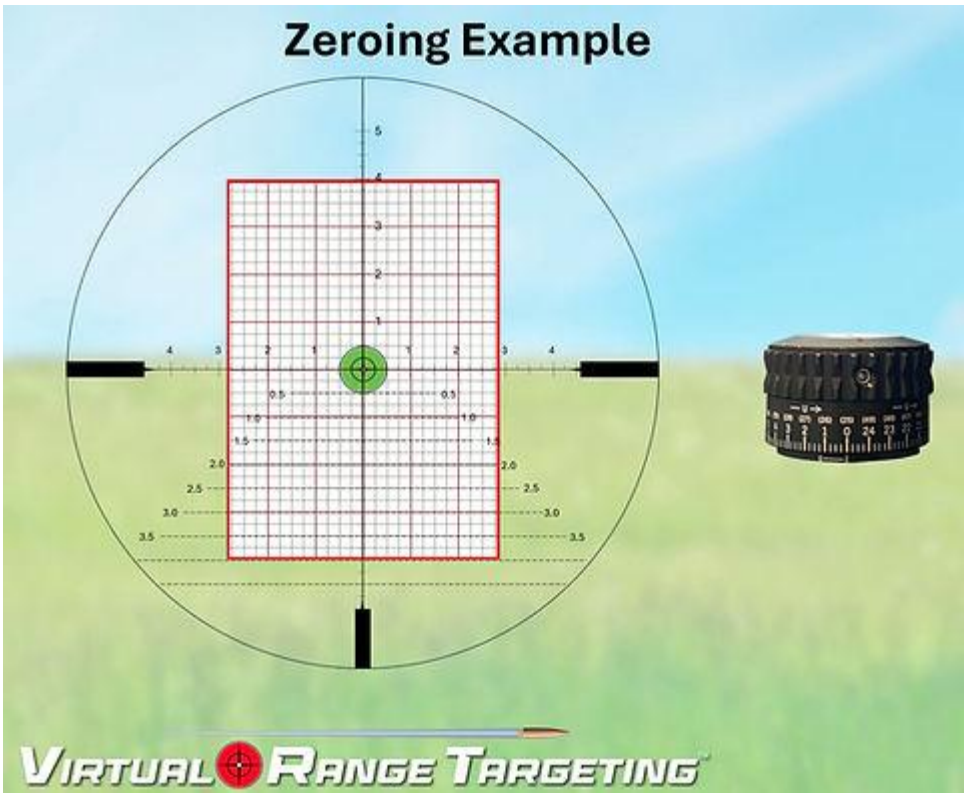
A MIL or MilliRADian is also an angular measurement, or a slice of a circle. That angle projected out to 100 yards gives you a measured size of 3.6 inches. A 0.1 MIL measures to 0.36 inches, which is how we set our MIL background grid. If your scope is a MIL scope, each CLICK of each turret (Elevation and Windage turrets) represents 1/10th of a MIL, or 0.36" at 100 yards. If you were shooting at 1000 yards, 1 MIL CLICK is 3.6 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 1 MIL line, P2 on the 2 MIL line, etc. For the MOA version, P1 is on the 5 MOA line, P2 is on the 8 MOA line, and so forth.

**Recommended Uses**

1. Zeroing your rifle / scope - A zeroed rifle means that when your elevation and windage turrets are set to ZERO, you should be able to hold the crosshairs over a target at 100 yards and hit it dead center, assuming perfect shooter hold and a perfect rifle. If your turrets are set to any value other than zero, and your shot hits dead center, your rifle is NOT zeroed at 100 yards. Please refer to your scope's instruction manual for guidance in zeroing your turrets.

   If you want to zero, or verify your zero, you can use any of the targets in this lane. Since the grid lines are placed on top of the bullseyes (ONLY in Lane 1), you will have an exact measurement of missed shots to set your zero. The video below is an example of zeroing your rifle. The process is the shooter holds his scope on the bullseye and fires three shots. You can see his rounds hit 1 MOA low. At this point the shooter notes the distance from the bullseye and dials his scope up to match the distance. Now the shooter fires three more shots and is now zeroed.

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2. General target-shooting at 100 yards to test and verify the shooter's accuracy. Use each target to do 3-5 shot groups to track your accuracy.

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. From this point forward, use the example of a rifle outfitted with a MIL scope.

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.

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

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, the internal reticle inside the scope shifts down. In other words, if you turn your turret to 1 MIL, the reticle is lowered 1 MIL. So, holding the crosshairs on the center of the target actually raised the barrel. When you AIM at the bottom target and dialed your scope to 1 MIL, you have now ELEVATED your barrel 1 MIL, 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 more to get that bullet all the way out there without impacting the ground too early. 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 the ZERO & PRACTICE Lane 1 to zero your scope and practice the effects of dialing to full MIL settings to hit various targets.

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