DEAD NUTS ZONE Target Technology

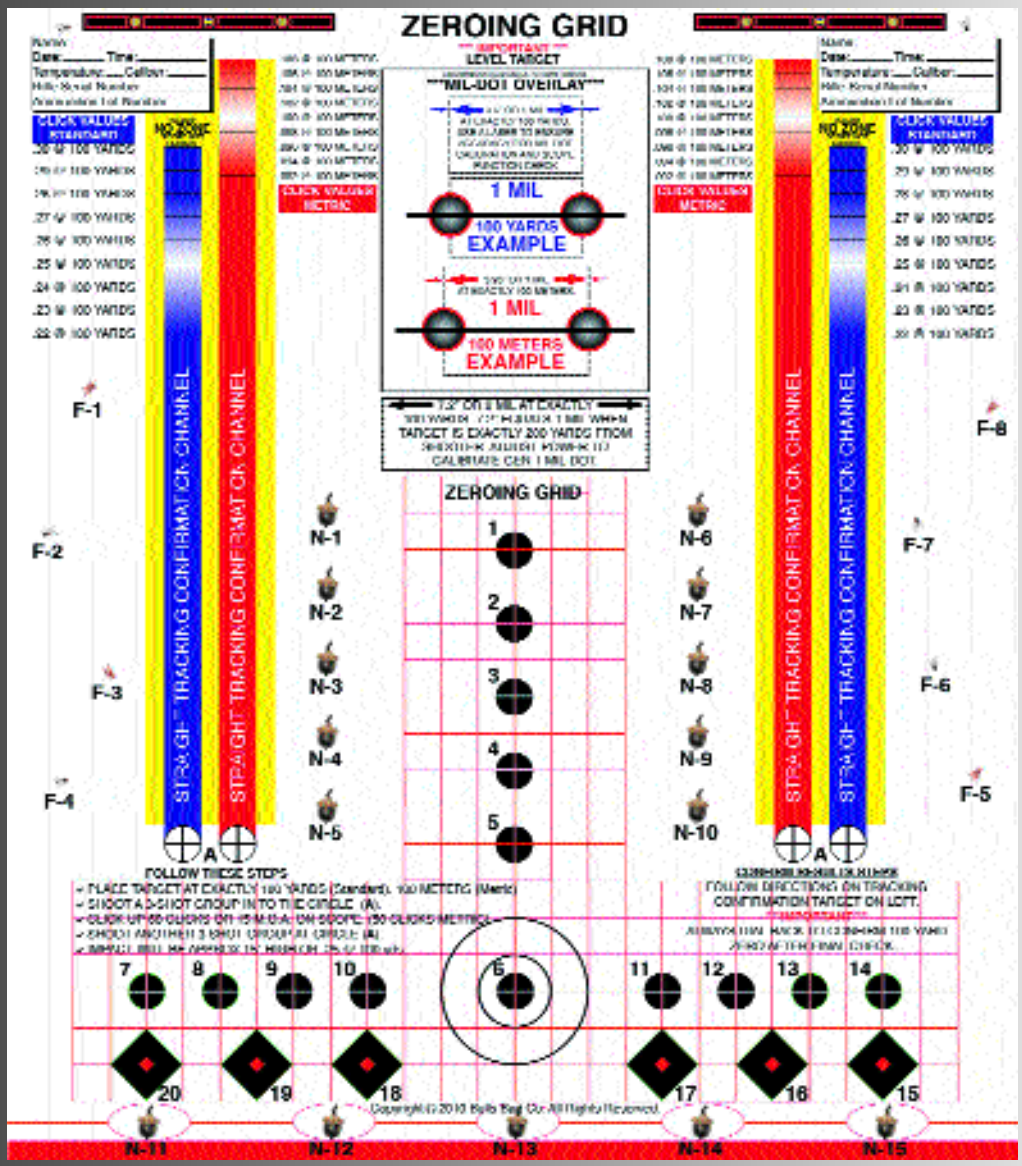
Bulls Bag Shooting Technology

Incorporated In

New DEAD Nuts/DEAD Zone Target...

BULLS BAG TECHNOLOGY
TC
TACTICAL ACCURACY CERTIFIED

- STRAIGHT TRACKING AND RETICLE CONFIRMATION
- 20-ZERO MARKS WITH 1" GRID/ 15 ACORN NUTS/ 10 FLIES
- 50 PLUS SIGHT-LINES FOR USE WITH 100's OF ROUNDS
- 2-100 YARD STANDARD CALIBRATION CHANNELS
- 2-100 METRIC/MILS CALIBRATION CHANNELS
- 1" ZERO GRID FOR QUICK SCOPE ADJUSTMENTS
- MIL-DOT OVERLAY *(Includes metric)* CALIBRATION TEMPLATE
- CLICK VALUES EVALUATION AND CALIBRATION CHART
- CALIBRATION CALCULATOR DATA LINK TO WEB STATS
- LARGE 28" X 40" ELIMINATES CHANGING TARGETS...
- FOR USE UP TO 1000 YARDS



applying the science of ballistic fingerprinting

The knowledge and technical data provided has been tested and proven in real-world tactical SWAT operations, training scenarios, and in national/world sniper competitions.

Take the guesswork out of your long-range shooting with a proven process in a shooting target...

Our goal at BULLS BAG in designing this shooting range target was to apply the science of ballistic fingerprinting and to achieve the best possible accuracy from your rifle. **DEAD Nuts/DEAD ZONE** Shooting Target TECHNOLOGY "System" will make you vastly more proficient during your limited range time with the use of our rifle target. The Operational Target for shooting **is the only known diagnostic check for the operational rifle** and can be used to quantify the claims of a new rifle system with use of our shooting range target. We will prove it functions consistently and correctly with this target and practice!

Most shooters are frustrated with the limited shooting range time, access to long-distance shooting ranges and cost of ammunition. Furthermore, once at a shooting range, we find ourselves being limited to a known distance in increments of 100 yards. Any long-range hunter and shooter knows this practice lacks practical application once in the field. To compound the problem, once we do our sighting and gathering of ballistic data on our weapons, we may travel to different geographical locations for the hunt or target practice. You could expect to have extreme temperature and elevation changes (density altitude) that will affect the pin-point accuracy impacts that you desire. For the most part there will be enough shooter error in your mechanics and wind readings to cause a miss at long-range. If you are the type of shooter that believes nothing is ever close enough, **we use mathematics and a proven diagnostic process to identify each rifle's idiosyncrasies.**

WE HAVE THE BEST SHOOTING TARGET TECHNOLOGY HERE AND NOW!

"There is rarely anything more disappointing to a shooter than identifying a problem with a rifle system after a full day of gathering ballistic data at the shooting range or especially during a hunt."

You need to know what makes this "DEAD Nuts/DEAD ZONE" calibration shooting targets valuable.

You must understand that all rifles and their components have acceptable tolerances in the machining process. Scopes have erector springs, reticles and tolerances within the bullet drop compensating turrets. Rifle barrels are machined, chambered and threaded. Rifle receivers are cut from steel blanks threaded and tapped for scope mounts. Then you have all the mounting option hardware with their acceptable machining tolerances. Combining all of these components can produce a system that is out of square or lacks concentricity.

IMPORTANT...
Example: **Your reticle may appear level but an acceptable tolerance for the manufacturer is 3 degrees.** This error is magnified exponentially by the shooting range to the target. This is most noticeable at long-range shots while shooting targets. However, many shooters dismiss this as wind deflection or external ballistic factors. Many rifles have a straight tracking issue, the ability of the reticle to adjust directly at a 90 degree angle, as identified in the two vertical straight tracking channels of the shooting target.

Let us suppose your 1/4" MOA scope (one click moves a bullet impact .25" (smoa) @ 100 yards) is truly a .28" moa click. This 3/100 of an inch difference at 100 yards magnifies itself to a 10.8 inch difference just in scope tolerance with 15" MOA of elevation placed on the scope for a 600 yard target. **Match your "true click value" to the rifle's ballistic drop table and you have exact corrective adjustments for all shooting ranges in Four Simple Steps...**

The target must be mounted level at exactly 100 yards. This is important as you will be gathering your true click value on our shooting targets. "True click value" is something most shooters accept as determined by the scope manufacturer. As you will experience, most scopes have "strong" or "weak" clicks due to tolerances within the scope. This information entered into your data book will make for precise "dope" corrections for your ever-changing shooting range conditions.

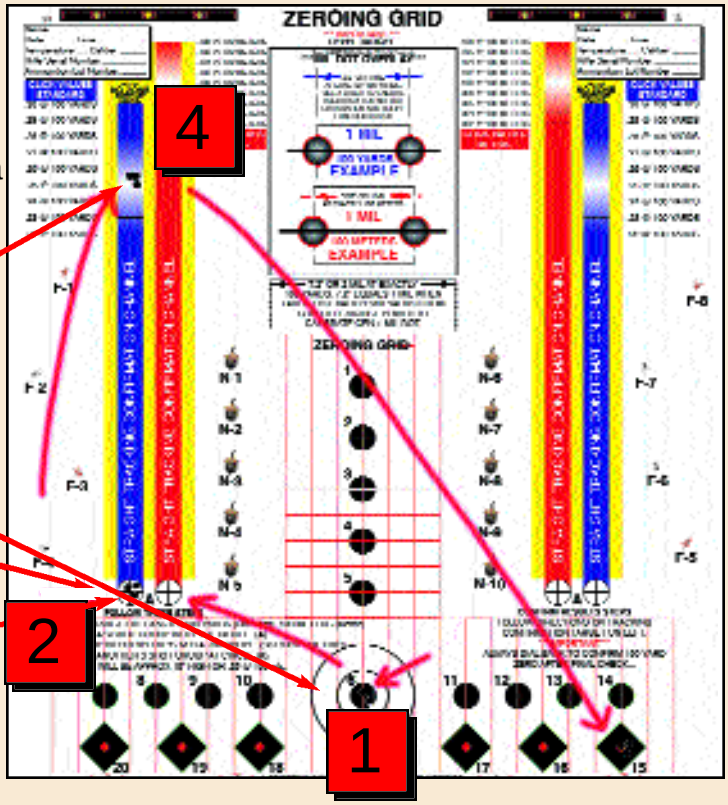
HOW TO USE...

1 The shooting should start on the 1 inch zeroing circles and grids. Once sub-minute of angle groups are in a dot the shooter may transition to a straight tracking shooting target channel **"A."** *(blue shown)*

2 Fire a 3 shot group into the circle at the bottom of the shooting target's left **"blue"** tracking channel.

3 Come up 15" moa (60 clicks for 1/4" moa scopes) on your elevation turret for the shooting targets second group. This simulates a long-range elevation correction; approximately 600 yards of elevation for a .30 caliber projectile traveling at 2600 fps.

4 Continue to aim at the same circle at the bottom of the first tracking channel **(A)** rifle target. The new group impacts will be approximately 15" high. The top group impact shooting target will also tell you the "true click value" as indicated on the straight tracking channel target practice exercise.

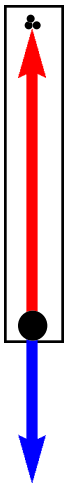


If your second group is unusually low on the shooting target, you may be out of usable clicks of elevation. A forward cant scope base will fix this. Years ago we added some shims under the rear of the scope or lapped the bottom of the front ring.

If the group impacts outside of the shooting targets channel, a problem has been identified. This is easily corrected by loosening the rings and giving a slight rotation of the scope in the opposite direction of the group.

In the shooting target pictured (right), notice the group on the left as compared to the group on the right. The shooter nearly brought the group back to true vertical tracking with an approximately 1/32" left rotation on his first attempt. A tighter group will produce more accurate data.. You will need to make slight corrections to your 100 yard zero each time the scope tube is rotated.

Simplified Straight Tracking Example

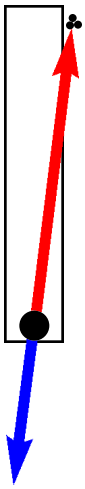


The second group impacts into graduated lines that will identify your "True Click Value."

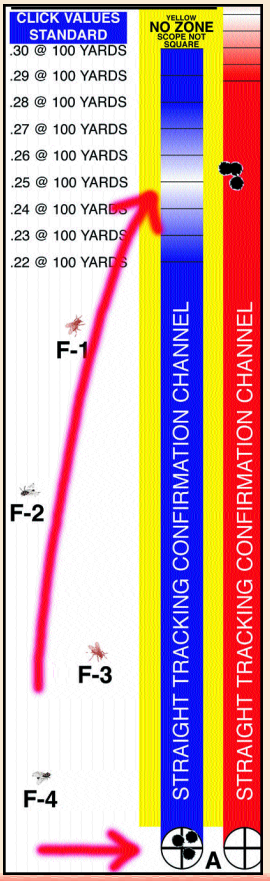
The red arrow shows where the impact will be following 15" moa of elevation; directly 12 o'clock from point-of-aim.

The blue arrow shows the path the reticle will move in as you add 15" moa of elevation; directly 6 o'clock from the point-of-aim.

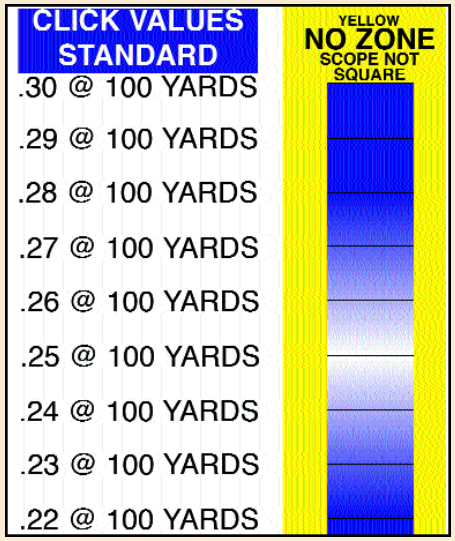
Obvious Tracking Issue Identified



In this figure the blue line represents the path of the scope with a tracking problem. Consequently, the impacts will be out of the "STRAIGHT TRACKING CHANNEL."

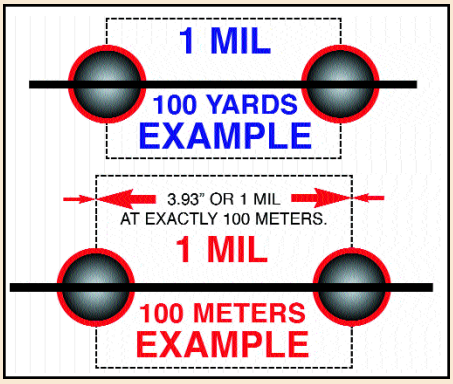


You will notice the bold horizontal lines in the top of the straight tracking channel shooting target illustration. These will identify the true click value at the shooting range. This will give you an overall average of your scopes elevation click value.

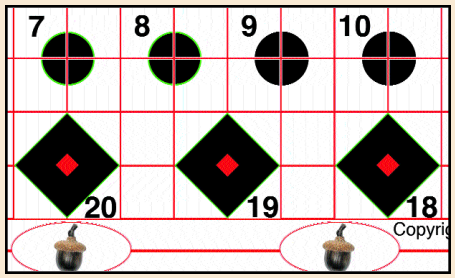


NOTE: You could also fire into the rifle target groups after every 3 or 5 minutes of elevation and watch as the groups climb up through the shooting targets tracking channel until finally reaching 15” moa of elevation. It never hurts to continue with another couple minutes of elevation and a follow-up group to ensure you are not at the end of your usable clicks of elevation as mentioned earlier. This can also be verified by having a shooting partner turn up some elevation on the turret as you are solidly locked in on the down-range shooting target. The reticle will move down as elevation is added.

You can calibrate your power sensitive Mil-Dot reticle by aligning one or two Mil-Dots onto the Mil-Dot overlay. We even helped duplex reticle shooters determine which points on their duplex reticles to use for range estimation and variable wind hold-off. This is especially useful as an aiming point on the reticle when dealing with inconsistent, variable wind speeds or a sudden lull in the wind.



IMPORTANT: There are six black diamonds on the bottom of the shooting target. It would be wise to engage these shooting targets after putting the 15 minutes of angle (60 clicks) of elevation on your scope and then returning to the original zero. This will confirm the ability of the scope to return and hold its zero. Some shooters struggle with what they deem a cold bore issue that may actually be a reticle settling issue. Now that you have performed this diagnostic shooting range function, checked your rifle system and corrected any problems, you’re ready for the field application. It is not enough to assume your bullet will exit the barrel at the velocity claimed by the manufacturer.



For truly accurate data, **we strongly recommend the use of the Bulls Bag Shooting Rest “System” that will alleviate multiple pressure points on the gun and reduce harmonic vibrations caused by metal shooting rest designs.** You can also chronograph the projectile and average at least 10 shots. Run a ballistic table matching the exact components and conditions you are shooting in; correct sight height, temperature and ballistic coefficient ,as examples. Use the following data as an example of pre-hunt charting for 620 and 630 yard shots. The yardage increments you choose on your ballistic chart can be based on a personal choice. In the example below we have chosen 10 yard increments.

<u>620 yards – bullet drop is 139 inches from your base zero</u>

- You determined your true click value is .28" at 100 yards and 1.73" inches per click at 620 yards or .28” x 6.20 = 1.73 (6.20 representing units of 100 yard increments)
- Divide the drop (139") by your true click value at 620 yards (1.73")
  139/1.73 = 80 clicks of elevation or 20 minutes of angle (80/4 = 20)

NEED Help?
Visit bullsbag.com *for “Click Value” calculator with built - in formula guide that will help in achieving the best possible results with ballistic fingerprinting/blueprint*

<u>630 yards – bullet drop is 145 inches from your base zero</u>

- You determined your true click value is .28" at 100 yards and 1.76" inches per click at 630 yards or .28” x 6.30 = 1.76 (6.30 representing units of 100 yard increments)
- Divide the drop (145") by your true click value at 630 yards (1.76")
  145/1.76 = 82 clicks of elevation or 20.5 minutes of angle (82/4 = 20.5)

Going through the shooting targets exercise above will prove to be very beneficial for your weapons system and **will save you a lot of aggravation, time and money**. You can get further information at www.bullsbag.com or by calling 717-294-6000