

## HINTS FOR USE OF OUR NEW 300 YD RANGE

Just a few hints that might work for you in shooting at the new 300 yd range.

### **Required equipment:**

1. If you have normal-older eyes you are going to need a good scope. At least 9 power and clear, mounted firmly, and a good spotting scope. OR a good 20-25 power riflescope on your gun.
2. You need a rifle that is consistent. Almost any caliber is ok but it needs to be built well, in good repair, and pretty consistent in its accuracy.
3. You are going to need to shoot ammunition that you have tested its performance and found to also be consistent.

### **Zero your rifle for 300 yards:**

1. Start at 25meters. Put up a WHITE target 8 1/2x11 or bigger with a medium or light "plus" sign or circle in the center for a bull. If you use a white target, you can more easily see the bullet holes against the dark earth background behind the holes. If you use a target with large, dark markings on it, a bullet hole cannot be seen if it falls within that dark area. Lines on the target should be no wider than about 1/8" or so thick for large calibers and even thinner for small calibers.
2. Rest the rifle or upper on sandbags, remove the bolt, and sight thru (down) the bore. Adjust the rifle until the white paper appears to be centered in the bore. Without disturbing the rifle, look thru the scope. Adjust the scope until crosshairs are on the bull when the bore is also aligned with the bull.
3. Assemble the rifle and shoot. Fire a couple of rounds and adjust the scope until the bullet holes are very near the bull.
4. Now move to the 100 yard range and put up another WHITE target. Same thing again. Look down the bore to verify that you haven't disturbed anything in moving.
5. Fire a couple of rounds and adjust the scope such that the bullets hit about **4-5 inches** above the bull when aiming right at the bull.. For precise number of inches, use the ballistics for your round if you know them. To do that precisely, you **MUST** know the muzzle velocity of that round from **YOUR** rifle as well as the ballistic coefficient of your bullet. My 20" Savage .308 rifle shooting factory Federal Gold Medal 168g MKs has an actual MV of 2550 and needs 5 inches. My 20" LR-308 in 6.5x47 Lapua shooting hand loads at 2600 fps is 4.8 inches. My 30-30 is about 8 1/2 inches. Your .270 will be around

4.5". Your 300 Win Mag will be closer to 4". Get the picture? **Faster muzzle velocities need fewer inches above the bull at 100yds to be "on" at 300.**

6. Now move to the 300 yd range. Put up another large WHITE target. Bigger is better. I use 2"x2". Staple a small 8 1/2x11 white target in the center if you are using white roll paper.

7. When all is safe, send one down-range. Look thru your spotting scope or rifle scope and see where it hit. Adjust the scope accordingly.

Note: If your scope is marked 4 clicks per inch (or 1 click=1/4 inch), that is only good for 100 yards! At 200 yds that is 2 clicks per inch or 1 click=1/2". At 400 yds that is 1 click per inch or 1 click= 1". Double the distance, double the sensitivity (half the clicks). **At 300 yds that is 1 1/2 clicks per inch (half way between the 200yd and the 400 yd numbers).**

If your scope is marked differently, you will have to figure it. If it is marked in minutes or MOA, you are fortunate and probably already know how to do this.

8. Now for real world shooting. You have the elevation under control. This will change very little with conditions at the range, Most ammo will run faster in the summer than in the winter but it will not affect the elevation of the point of impact too much. The wind, however is a different story. It can deflect the bullet of a slow moving round at 300 yards by many inches. Maybe even enough that you do not even hit the target frame! It can change from second to second even.

Make a guess at the wind downrange before you shoot. Again how much you need to hold for any wind depends on the speed of your bullet and the ballistic coefficient of that bullet. **Faster=less wind drift. Higher BC bullet=less wind drift.** My 20" .308 with a MV of 2550 shooting the high BC bullet mentioned above has over 10 inches of wind drift in a 15 mph crosswind. A 300 Win Mag shooting the same bullet at 3100 fps MV has only about 7 inches of wind drift in the same wind.

Good luck and enjoy!

Bert