



USO-PFI 762C

Adaptive Combat Reticle

User Guide

Dear PFI Customer,

Thank you for purchasing this product. Please read these instructions carefully and completely for the best performance and safety. Do not discard this manual and keep in a safe place for future reference. We hope that you are completely satisfied with your new optic. Please let us know if we can better assist you in any way.

For product support, please visit our website at www.RapidReticle.com or reach us via email at customerservice@RapidReticle.com or contact us directly at (909) 599-0928.

We appreciate your support and look forward to providing all of our customers with the finest and highest performing optical products.

www.RapidReticle.com

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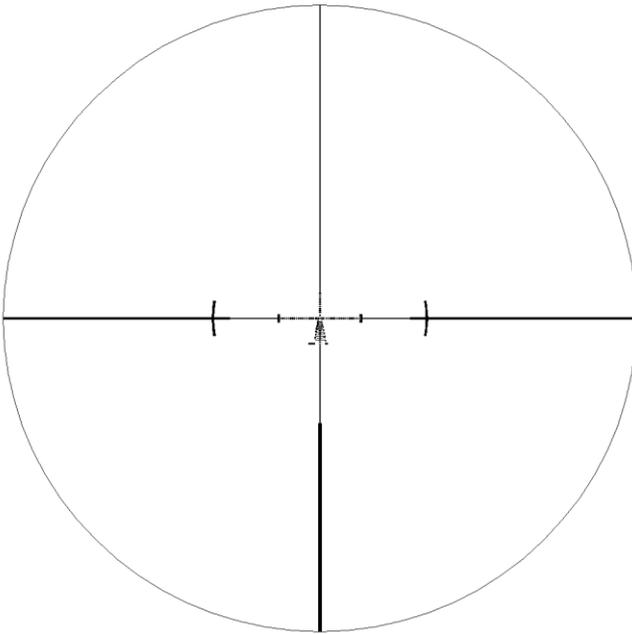
Introduction

The **762C Adaptive Combat Reticle** by Pride Fowler Industries, Inc® has been designed specifically for US Optics® for use with 7.62x51 weapon systems. It is also compatible with 5.56x45 weapon platforms out to 600 meters. This reticle is designed to compensate for the ballistic drop of 175gr 7.62x51 ammunition and provides other critical ballistic information that will reduce engagement time and maximize the performance of the weapon system.

The 762C Combat Reticle will provide ballistic drop data, ranging on 9"/18" objects (Rapid Ranging), Mil-ranging, wind holds out to 10mph, and impact guidance for low magnification utilization (Rapid Guide). The various ballistic data allows for adaptation to elevation, barrel length, and ammunition changes.

Combined with the superior quality of the US Optics SR-8S scope body, the USO-PFI 762C is a formidable optic system that is versatile and powerful in the ever changing battlefield environment. It offers a choice to operators conducting critical missions and extends the capabilities of common weapon systems.

Due to the first focal plane design, the reticle will be reduced in size at lower magnification. Because lower magnification is intended for use with closer targets, it is unnecessary for the longer distance holds to be visible. The Rapid Guide feature offers impact guidance for closer targets. The bolded bottom center post of the reticle offers a lateral guide while the bolded arcs on either side of center offers a vertical impact guide.



Reticle at 1x

Compatible Ammunition

- 7.62x51: 175gr, B.C. 0.485-0.505 @ 2440 fps, 16" barrel
- 7.62x51: 175gr, B.C. 0.485-0.505 @ 2575 fps, 20" barrel
- 7.62x51: 168gr, B.C. 0.431-0.447 @ 2405 fps, 16" barrel
- 7.62x51: 147-150gr B.C. 0.397 to 0.410 @ 2600 fps, 16" barrel
- 5.56x45: 55-75gr, B.C. 0.234 to 0.272 @ 2660-3200 fps, 16" barrel
- Other ammunition can be used that produce similar ballistic coefficients

Zeroing and Adjusting the Scope

After mounting the optic to the weapon system, the scope must be zeroed properly in order to function as designed. Although there are many ways to zero an optic, PFI recommends that the weapon is zeroed at 25 yards initially in order to locate the impact point. Once the impact point is located, coarse adjustments can be made in order to bring the impacts near the center of the reticle by rotating the adjustments accordingly.

The adjustments on the USO-PFI 762C are set to 1/2 MOA per click which is equivalent to 1/2" at 100 yards. Furthermore, each click is also equivalent to 1" at 200 yards (1/2 x 2), 1.5" at 300 yards (1/2 x 3), 2" at 400 yards (1/2 x 4), etc. At 50 yards, each click is equivalent to 1/4" (1/2 x 1/2).

When the point of impact (POI) is located, move to a target at 100 yards and fire the rifle 2 or three times. Rotate the turrets accordingly to move the POI to the center of the reticle. Once there is a consistent group (1/2 to 1 MOA), the optic is zeroed at 100 yards.

There are many factors that affect the ballistics of a bullet including wind, elevation, wind, temperature, and barometric pressure. Because of these factors, it is recommended that the user determine approximately the furthest distance the shooter intends to engage targets. Once the furthest distance is determined, the user should fine tune the impacts for that distance with the corresponding hold in the reticle. Although any additional adjustments will offset the reticle at closer distances, by utilizing these instructions, the longer distance impacts will be more precise. There will be small deviations for closer targets comparatively, which will allow the user to maximize the performance of the weapon system.

If it is intended that multiple types of ammunition will be utilized for the same platform, zero the scope with the ammunition that will be used most often. After switching ammunition, record the number of elevation adjustments needed to zero the other ammunition for 100 yards. This number should be a constant number of adjustments to make when switching between ammunition. Recording this number and having it available will enhance the versatility of the platform especially during critical moments. Typically, this number should be approximately 1.5 to 2 MOA.

As environmental factors change, small adjustments can be made for more precise impacts. If the turrets are set to zero with the base zero, adjustments can be quickly reversed in order to return to base conditions.

Rapid Ranging

Ranging 9" and 18" Objects

The **762C Adaptive Combat Reticle** can be used to range known-sized targets with the Rapid Ranging feature. All ranging will correspond with the numbers on the right side. When shooting using left side ballistic data, range the object with right side data and use the appropriate hold on the left for that distance. In this case, 9" and 18" will be ranged using various markings within the reticle.

When using higher magnification, 9" and 18" objects can be clearly ranged using ranging devices within the reticle. For 100 and 200 meter targets, all ranging will be done with the main stadia lines and the center arcs.

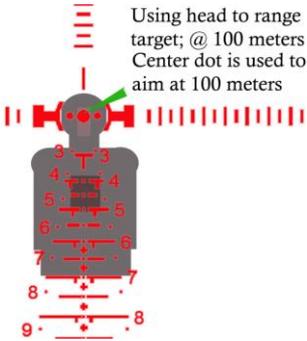
For 9" objects, 9" objects will fill the center arcs at 100 meters. At 200 meters, a 9" object will cover the space between the dots on either side of the center dot.

For 18" objects at 100 meters, the object will fit between the vertical tick on either side of the center arcs. At 200 yards, 18" objects will be between the arcs.

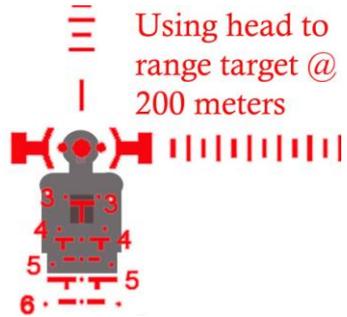
For all other distances beyond 200 meters, each holdover has spacing and down ticks for ranging. The space in the middle of each holdover represents 9" at that particular distance. The down ticks on either side of the spaces in center represent 18" at that distance.

We will be using humanoid figures for our examples which feature 9" heads and 18" shoulders. Please see the following diagrams on the next page for ranging examples.

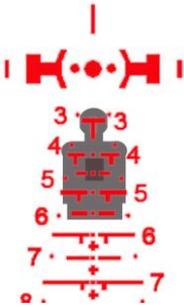
Example 1: 9" object @ 100m



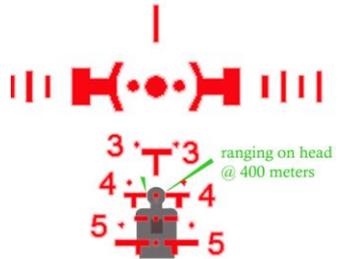
Example 2: 9" object @ 200m



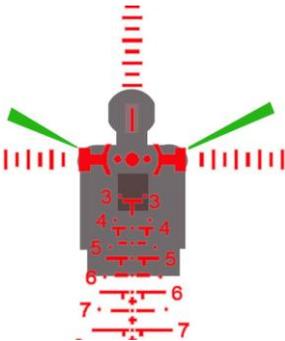
Example 3: 9" object @ 300m



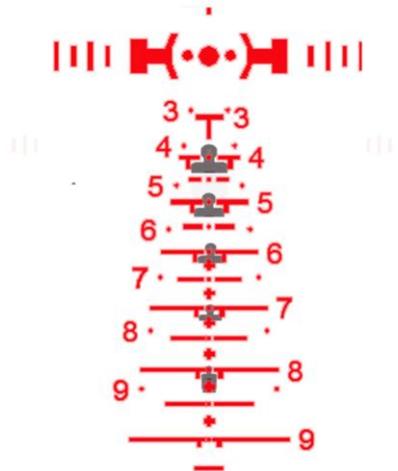
Example 4: 9" object @ 400m



Example 5: 18" object @ 100m



Example 6: 9" and 18" @ 400-800m



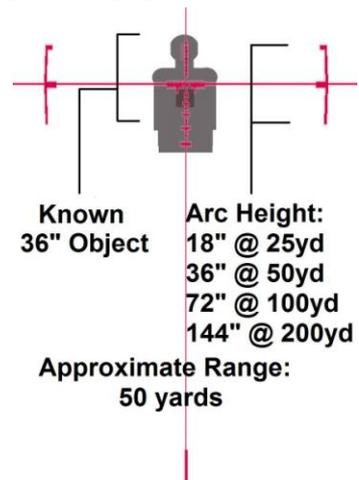
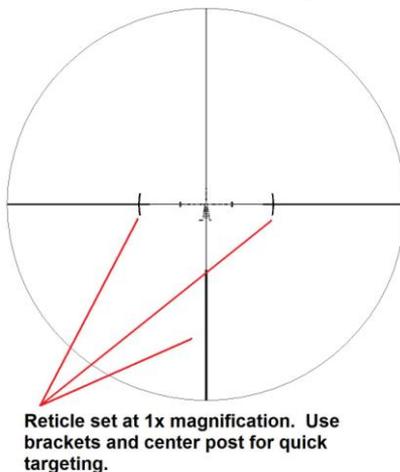
Rapid Guide and Ranging at Low Magnification

Rapid Guide is an enhancement that will give impact guidance at low magnification. When on low power, the main reticle is not always clearly visible even though all holdovers remain the same due to the first focal plane design. Because it is not necessary to have a clear view of the entire reticle when low magnification is used, the Rapid Guide assists with point of impact guidance.

When the optic is set on low magnification, 72MOA arcs will appear which offers elevation guidance. The bold bottom post will also appear which offers lateral guidance for impacts. Close targets lined up with the arcs and center post will have the same impacts as those with higher magnification without loss to the field of view.

The 72MOA tall arcs are equivalent to 72" @ 100 meters, 36" @ 50 meters, and 18" @ 25 meters. Objects with known heights can be compared to the arcs to determine an approximate range. For example, the leg of a deer can be assumed to be 36". When compared to the arcs, if the leg is half the height of the arcs, the approximate distance of the deer is 100 meters since the arcs are 72" @ 100 meters and half of 72" is 36". If the same leg is at the full height of the arc, then the deer would be at approximately 50 meters.

Image 1: Rapid Guide for low magnification **Image 2:** Ranging with Rapid Guide



Ranging with Mils

Also featured on the main stadia lines are Mil markings used for calculating approximate range for known-sized objects. One Mil is equivalent to one full length tick to the next full length tick. Between each full length tick is a ½ Mil mark.

Calculating a targets range using Mils requires a formula. The formula for a **meters** calculation is as follows:

$$\text{Approximate Distance} = (\text{Known target size}) \div [(\text{number of Mils object covers}) \times 3.6] \times 91$$

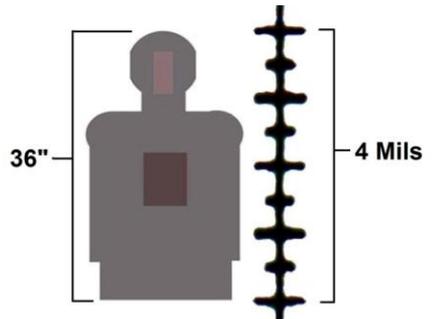
For **yards** calculations:

$$\text{Approximate Distance} = (\text{Known target size}) \div [(\text{number of Mils object covers}) \times 3.6] \times 100$$

EXAMPLE:

In this image, our target is a known 36". According to the Mil scale, the object is about 4 Mils tall.

Therefore, using our formula, we can approximate the distance as follows:



$$\begin{aligned} \text{Known Target Size} &= 36'' \\ \text{Number of Mils} &= 4 \end{aligned}$$

$$= 36'' \div (4 \times 3.6) \times 91 = 36 \div 14.4 \times 91 =$$

227.5 meters

or

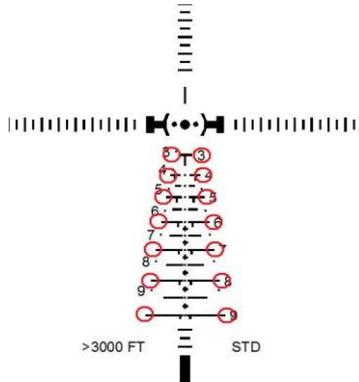
$$= 36'' \div (4 \times 3.6) \times 100 = 36 \div 14.4 \times 100 =$$

250 yards

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Wind Holds

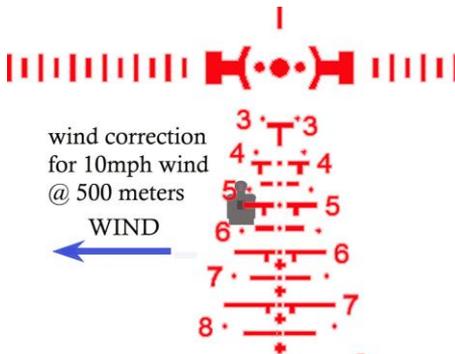
Use the following instructions for utilizing the wind holds included in the **762C Adaptive Combat Reticle**. These wind holds will assist in approximating impacts with wind value. At the end of each holdover line is approximately 10mph for supersonic ammunition.



For example, if there is a left to right 10mph cross wind with a stationary target, hold the right end of the holdover on the target.

These wind holds can also be used to lead running targets as well. If there wind value is zero and the target is running left to right at 10mph, lead the target by holding the left end of the holdover on the target.

For a 5mph wind or lead, hold at approximately the half the distance of the holdover to the right or left of center.





For more information about PFI products and services, see the PFI Website at <http://www.RapidReticle.com>.

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