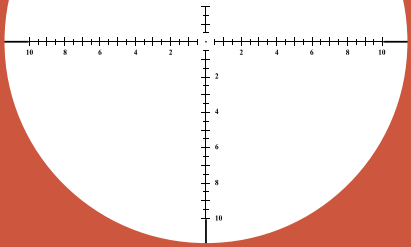
ATHLON
RIDICULOUSLY GOOD OPTICS

BLR SFP MOA

Argos BTR GEN2 Riflescope

SECOND FOCAL PLANE

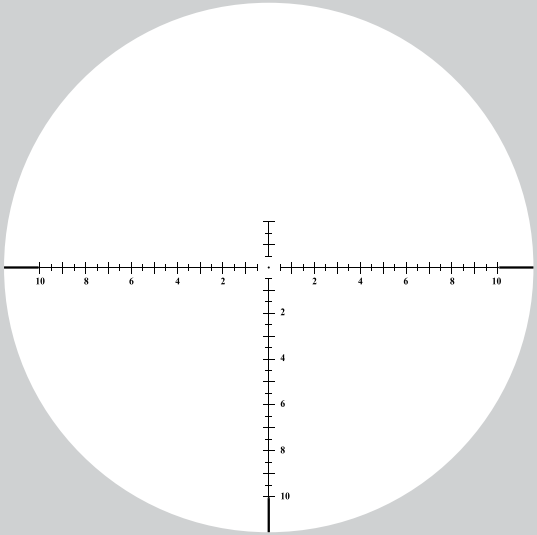


RETICLE MANUAL

THE ATHLON® BLR SFP MOA RETICLE

BLR SFP MOA reticle is designed to maximize your performance for both Bench Rest and F-Class shooting applications. Fine line thickness of the reticle (0.016 moa) allows for pinpoint precision at extreme ranges, especially on smaller targets. A non-illuminated floating center dot (0.09 moa thick) provides a precise aiming point. This reticle combined with the Argos BTR GEN2 Riflescope provides the perfect solution.

Application: Precision Mid and Long Range Shooting for both Tactical and Hunting

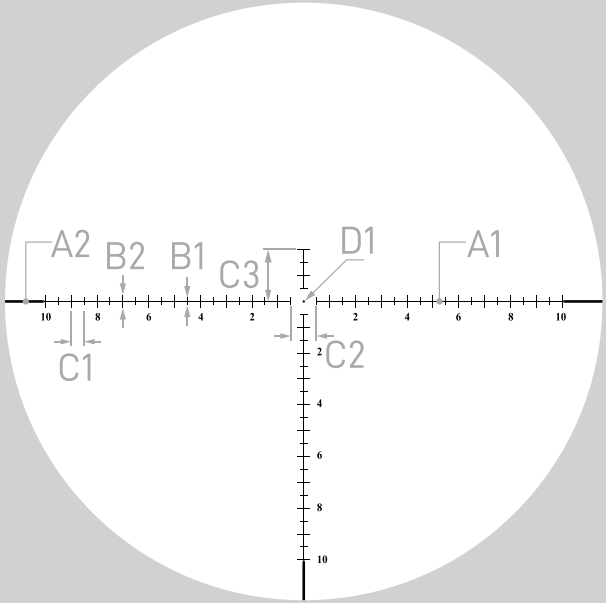


RETICLE SUBTENSIONS

The BLR SFP MOA reticle is based on the minute of angle, a unit of angular measurement, usually shortened to moa. A "moa" is defined as "one minute of an angle". As a full circle has 360 degrees, and each degree is composed of 60 minutes (60'). thus there are 360 (degrees) x 60 (minutes) = 21,600 minutes in a circle. Since there are 360 degree in a circle, we can get 360 degree/21600 minutes = 0.016667 degrees/minute. If the target is 100 yards (3600 inches) away, we can use a formula, 3600*TAN(RADIANS(.016667)), to get 1.047 inches which means 1 moa equals to 1.047 inches at 100 yards. Many people just round down the 1.047 inches to 1 inch @100 yards. If you are using metric system, formula 100000mm*TAN(RADIANS(.01667)) gets you that 1 moa equals to 29.1mm @100 meters.

The BLR SFP MOA reticle is located at the second plane which stays in between erector tube and ocular lens. The size or the appearance of a second focal plane reticle does not change when you try to zoom in or zoom out, however the relative ratio between reticle and your target changes all the time because your target appears bigger or smaller when the magnification changes.

The subtensions of a second focal plain reticle and ranging capability are only accurate at certain magnification and due to this nature, the subtensions of the reticle are only valid at 40x for 10-40 x56 scope.



SUBTENSIONS IN MOA

A1	A2	B1	B2
0.016	0.1	0.3	0.5
C1	C2	C3	D1
0.5	1	2	0.09

DISTANCE RANGING

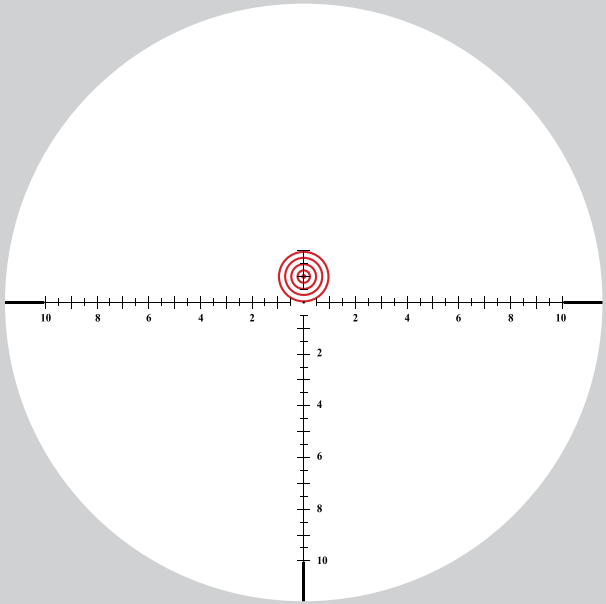
Equations for ranging distance to a target using moa

$$\frac{\textit{Height of Target (Inches) x 100}}{\textit{MOA Reading on Reticle}} = \textit{Distance to Target (Yards)}$$

$$\frac{\textit{Height of Target (CM) x 34.4}}{\textit{MOA Reading on Reticle}} = \textit{Distance to Target (Meters)}$$

As the height of target and moa reading on the reticle are two key variables in this equation, you have to get an accurate value for those two as mush as possible. First all you want to put your rifle on a steady rest so you can get an accurate reading of the target height on the reticle. If needed using the smallest measurement on the reticle to get the most accurate readings. Second use your best knowledge on the height of the target, such as 72 inch high fence or 45 inch shoulder high of white tail deer, to give a value of the target height. Once you got the reading on reticle and your estimate of the target height, you can just simply use above equations to calculate the distance to your target.

EXAMPLE



Reading a 3-foot target (36 inches) at 6 moa gives 600 yards

$$\frac{\textit{36 inches x 100}}{\textit{6 moas}} = \textit{600 yards}$$

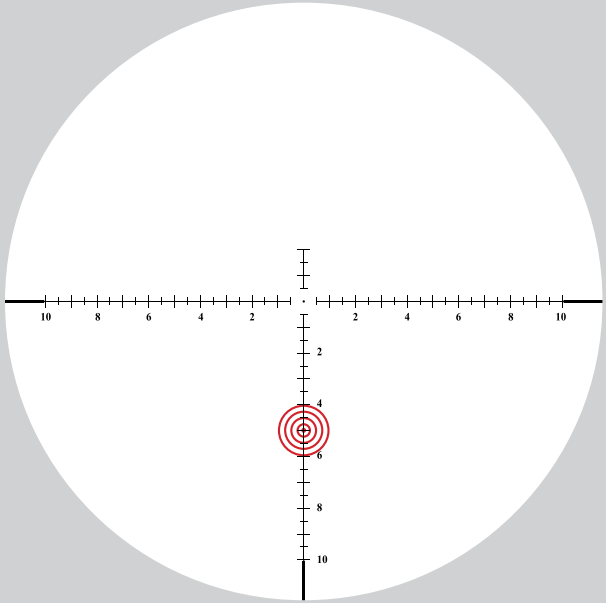
HOLDOVER FOR COMPENSATING BULLET DROP

To be able to use the elevation holdovers effectively, you have to know the distance to your target and bullet trajectory (bullet drop in inches or moa). Since many bullet ballistic charts highlight bullet drops in inches and 1moa equals to 1.047 (rounded down to 1 inch) at 100 yards, 2 inches at 200 yards, and 10 inches at 1000 yards, etc, we can use those to calculate the holdover position in moa on this reticle.

For example, under no wind condition, if you knew your target is at 600 yards and your ammo has a 30 inch bullet drop at that distance, you want to use 5 moa holdover point. Here is how you got the 5 moa: since 1 moa equals to 1 inch x 6 =6 inches at 600 yards, and then 5 moa equal to 5 x 6 inches =30 inches at 600 yards, you want to hold the 5 moa drop point to compensate the 30 inch bullet drop.

To achieve ultimate precision, it is always a better idea to develop your own D.O.P.E (Data of Previous Engagement)chart so that you can refer back to it for specific bullet drop compensation under different ambient environment and weather condition.

EXAMPLE



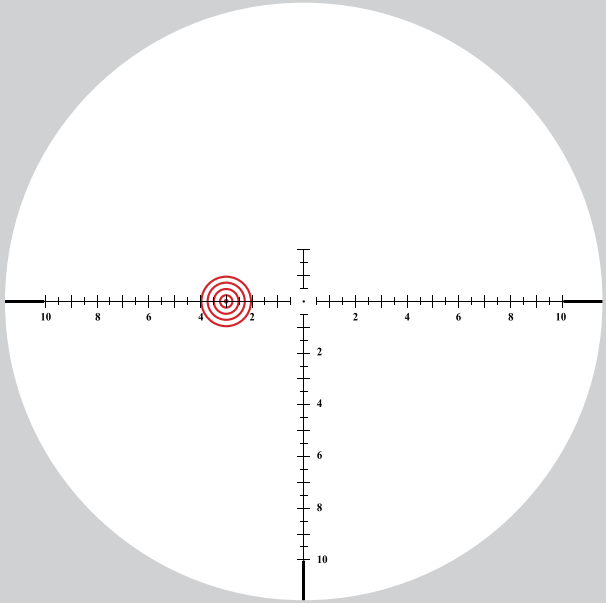
5 moa /30 inch holdover for a target @ 600 yards out. No wind.

HOLDOVER FOR WIND CORRECTION AND MOVING TARGET

The BLR SFP MOA reticle has 0.5 moa markings increment both vertically and horizontally from the 0.09 moa floating center dot which can help you set your holdover positions to compensate wind correction and hold the lead for a moving target.

The flying time of a bullet, the velocity and direction of the wind and the "slippery-ness" of the bullet expressed in BC (Ballistic Coefficient) determine your holdover for wind correction. Once again you have to understand the impact of those three factors on your bullet's flying path in terms of inches or moa and calculate how much holdover you have to hold, and then finding the corresponding holdover position on the reticle is a much easier task to accomplish.

EXAMPLE

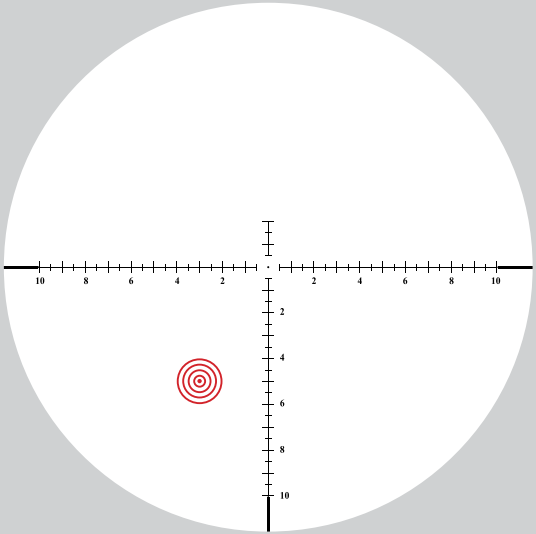


3 moa wind correction for 5 mph wind from right to left @ 600 yards. Elevation turret has been dialed up to compensate bullet drop, just simply use center horizontal cross line to holdover for wind correction.

USE VISUAL CROSS POINT FOR WIND CORRECTION AND BULLET DROP

As an alternative, you can use a virtual cross point formed by hash marks on both horizontal and vertical cross lines to holdover bullet drop and wind correction.

EXAMPLE

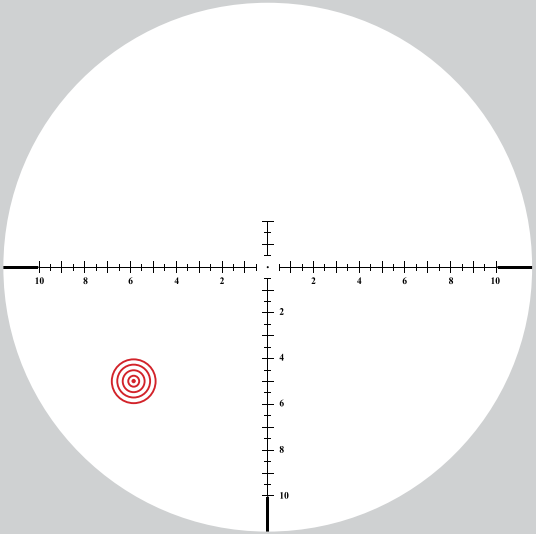


Use 5 moa for 30 inch bullet drop for a target @ 600 yards, 3 moa wind correction for 5 mph wind from right to left.

HOLD LEAD CORRECTION FOR A MOVING TARGET

Distance to your target, moving speed of your target, bullet flying time, wind direction are the key factors that determine how much holdover you need to hold for a moving target. As a rule of thumb, you always hold the lead for the net distance of your target moved (add or subtract holdover for wind correction) during the time span your bullet traveled.

EXAMPLE



5.9 moa lead holdover for a moving target traveling at 2 mph from left to right @ 600 yards. Bullet flight time is 1 second during which the target traveled 2.94 feet. No wind.

THE ATHLON
GOLD MEDAL LIFETIME WARRANTY*

Demand the most from your equipment. When things go unexpectedly or accidents happen, rest assured, Athlon Optics carry a lifetime transferable warranty. Athlon guarantees to repair or replace your product if damaged through normal use. No charge; No receipt; No Registration required.

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801 N MEADOWBROOK DR,
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