MGS8- ATHENITP BPR MIIL Reticle mandul

## THE ACSS ATHENA BALLISTIC PRECISION RETICLE

ACSS Athena BPR MIL includes very fine subtensions for accurate ranging and fire correction at extended ranges and high magnification. Overall, the reticle extends 10 MIL up, left, and right of the center chevron, and 15 MIL down. Large hash marks are found in 1.0 MIL increments, with smaller marks between them at 0.5 MIL increments.

## ESTABLISHING ZERO, OR DIALING

 IN YOUR SCOPEAthena BPR uses a chevron as the center aiming point of the reticle. When zeroing your rifle, adjust your Windage and Elevation knob positions so that the point of impact coincides with the tip of the chevron. Using the chevron tip allows for an infinitely small point of aim that never covers up the part of the target you want to hit, giving the chevron tip a precision advantage over traditional crosshairs or a center aiming dot.


## ACSS ATHENA CENTER SECTION

The tip of a very small chevron occupies the center. The chevron measures just 0.1 MIL down from center and 0.1 MIL to the left and right of center. Thus, the outer tips of the chevron legs are located 0.1 MIL from center, and 0.2 MIL apart from each other.

## ATHENA OUTER SECTION

At 2 MIL distance left/right from center, the solid crosshair line begins, using alternating upper and lower marks forming a MIL ranging section. These can be used to range targets using extremely fine 0.1 MIL increments. At 3 MIL left/right from center, the 0.5 MIL hash marks begin.

TENTH MIL SECTION

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## THE MIL GRID

The MIL grid consists of small 0.05 MIL thick dots located at intervals of 0.5 MIL below center and 0.5 MIL left/right of center. The grid continues downwards adding a dot or number every 0.5 MIL. The full grid reaches 15 MIL down and 6 MIL left and right of center. To help with navigation, at 1.0 MIL intervals the dot size grows to 0.1 MIL thickness. Numbers 2, 4, and 6 located on the outer edges of the grid represent total MIL both down from center and left or right from center. Numbers 8 through 14 represent total MIL down from center, but the grid stops expanding to the left and right at 6 MIL.

Beginning 1.0 MIL below center, the centerline "backbone" crosshair features small hash marks that extend just 0.1 MIL left and right from center, alternating with large hash marks measuring 0.5 MIL left and right of center. To help with navigation, every 5.0 MIL the large hash marks are embellished with indicator bars on the ends, giving them a distinctive barbell shape

## GRID DETAIL

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## THE RANGING LADDER

RANGING LADDER SECTION
Located high and right of center is the ranging ladder. Vertical ranging is calibrated for a $5^{\prime} 10^{\prime \prime}$ tall target. Looking through the scope at the target, line up the bottom of the target with the horizontal crosshair. The line that coincides with the top of the target indicates the distance to the target. For example, if the top of the target touches the line with a "4" next to it, the target is 400 yards distant. The ranging lines may be used as reference points to make more precise, yet quick ranging determinations. You can also use the ranging lines to estimate distances within the hundred-yard increments. If a $5^{\prime} 10^{\prime \prime}$ target measures halfway between the " 4 " and " 5 " lines, the target's approximate distance is 450 yards.

Horizontal ranging is calibrated for an $18^{\prime \prime}$ wide target. Simply line up the target's width with the appropriate line to determine range to target. For instance, an 18 " wide target matches the " 6 " horizontal ranging line at 600 yards. This method is useful when the target's height is partially obscured, as with a target in tall grass.


## HOW TO USE MILS

This reticle features MIL (Milliradian) stadia, which you can use to range targets and communicate with other marksmen or observers. To range using MILs, estimate the height or width of your target. Once you have an estimated target size, find the size of the target in MILs by lining the target up with your MIL subtensions.

Depending on your preferred units of measure, you can use different formulas to calculate range estimates:

## RANGE (METERS) =

Target Size (Centimeters) * 10 / Target MILs

## RANGE (METERS) =

Target Size (Meters) * 1000 / Target MILs

## RANGE (METERS) =

Target Size (Inches) * 25.4 / Target MILs

## RANGE (YARDS) =

Target Size (Inches) * 27.78 / Target MILs

| WEAPON |  |  | DATE |  |
| :--- | :---: | :---: | :---: | :---: |
| SHOT NO. | DIRECTION/DEFLECTION | ELEVATION | RANGE | AMMO |
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| NOTES: |  |  |  |  |

