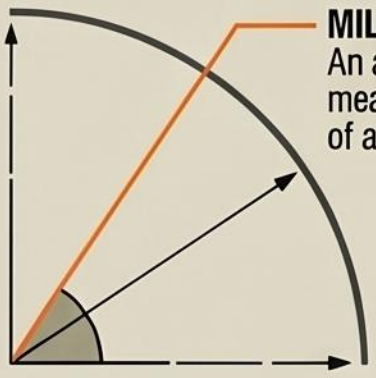
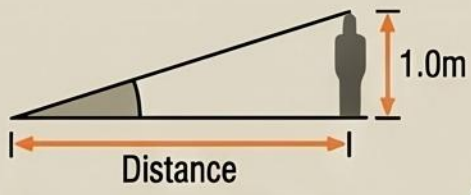
Mastering MILS:
A Precision Shooter's Guide to Range, Wind, and Elevation

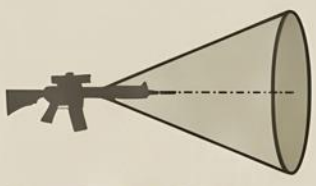
DEFINING THE MIL (Milliradian)



MIL (Milliradian): An angular measurement, 1/1000th of a radian.



The Proportional 1/1000th Rule: 1 MIL = 1/1000th of the distance.
1 MIL at 1000m = 1 meter;
1 MIL at 100m = 10 contimeters.



Angular vs. Linear: As distance doubles, physical space 1 MIL covers doubles. It's an angle, not a linear measurement.

READING THE MIL-DOT RETICLE

Subtension: Physical amount of target a mark covers at distance.

Standard Dot Spacing: 1.0 MIL

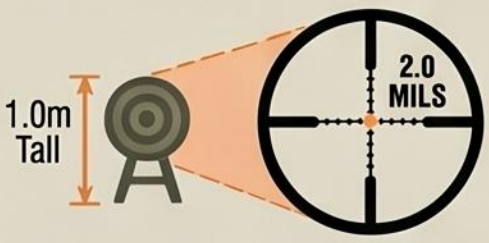
Using Dot Size for Precision: Standard dots are 0.2 MILs wide. Use edges for 0.1 increments.

RANGE ESTIMATION FORMULAS (Meters Only)

The Standard Metric Formula

(Target Height in Meters × 1000) + Mils Read in Scope = Range in Meters

Example (1.0m Target):
(1.0 × 1000 + 2 MILS) = **500 METERS**



The Inch-to-Meter Formula

(Target Height in Inches × 25,4) ÷ Mils Read in Scope = Range in Meters

Example (20" Target):
(20 × 25.4 + 1.2 MILS) = **423.3 METERS**

QUICK MIL-TO-DISTANCE REFERENCE (Meters)

Quick Reference for 0.5m Targets target (approx. 20 inches)

MILS Measured	Distance in Meters (for 0.5m Target)
0.5 MIL	1000 Meters
1.0 MIL	500 Meters
1.5 MIL	333 Meters
2.0 MIL	250 Meters
2.5 MIL	200 Meters

GRAVITY AND WIND HOLDOVERS

Holding Over for Gravity: Instead of dialing, use vertical MIL marks to aim high. E.g., for 2 MIL drop at 400m, piace 2nd MIL dot on target.

Holding for Wind: Wind changes fast; use horizontal MIL dots to alm "into" the wind.

"Move and Stop" Rule: if wind is left, move reticle left and stop at required MIL measurement.