FIRST FOCAL PLANE MIL-DOT RETICLE

FRONT FOCAL PLANE RETICLE

Mil-Dot reticle is located internally in the Front (First) Focal Plane. Reticles such as a Mil-Dot are based on a specific subtension and require exact feature spacing to ensure accuracy. Placing this type of reticle in a front focal plane design allows the shooter to use the scope on any magnification while retaining the exact spacing of the reticle features. A reticle located in the first focal plane grows or shrinks along with image size when the power is changed (See Fig.1). As a result, the spaces between the reticle marks will always subtend the same distance at any power setting. This means that no matter what power you have the scope on you can mil, hold over, hold off or do anything that requires an accurate measurement without worrying about the scope's power setting.

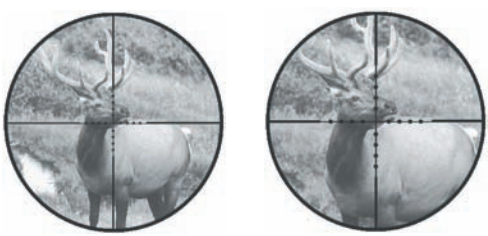

Fig.1
First Focal Plane: the reticle increases as magnification increases or decreases as magnification is decreased.

MIL-DOT RETICLE

The middle of this reticle contains four evenly spaced mil-dots arrayed outward vertically and horizontally from the center. Because the very center dot was left out to allow clear aiming, the reticle represents five mils in any direction. Note that the most outward dot is replaced by the edge of the heavier reticle line. One mil is the space from center-dot to center-dot. One-half and one quarter mils are easy to estimate mentally; with practice, you can measure tenths of mils for the most exact ranging.

RANGING WITH THE MIL-DOT RETICLE
The mil is an angular measurement --- 1/6400th of a circle --- which equals almost precisely one yard at 1000 yards, or one meter at 1000 meters. This proportional relationship makes possible a simple formula to compute distances:

$$\frac{\text{The measured object's width or height in yards} \times 1000}{\text{Object's width or height in mils}} = \text{Range in yards}$$