Field of View for telescope eyepieces

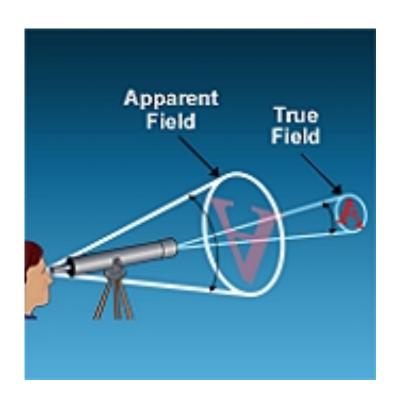
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An eyepiece's <u>apparent field of view</u> is the angular diameter, expressed in degrees (°), of the circle of light that the eye sees. Eyepiece apparent fields range from narrow (25° - 30°) to extra-wide angle (80° or more). For UST eyepieces: use an apparent field of view of 50°. The <u>true field (or real field) of view</u> is the angle of sky seen through the eyepiece when it's attached to the telescope.

<u>Summary</u>: Apparent FOV is the sky arc you *think* your eye sees through eyepiece. True FOV is the *actual* arc of sky your eye sees (e.g., looking at Moon you think you see 50° of sky, but you really see only 1°).

Equation: True Field = Apparent Field ÷ Magnification

For example, suppose you have an 8" Schmidt-Cassegrain telescope with a 2000mm focal length, and a 20mm eyepiece with a 50° apparent field. The magnification would be $2000\text{mm} \div 20\text{mm} = 100\text{x}$. The true field would be $50 \div 100$, or 0.5° - about the same apparent diameter as the full Moon.



James Clarage, based upon https://www.telescope.com/Apparent-Field-vsTrue-Field/p/99822.uts