

Q.: How do I know the Field of View of a Telescope? (Q003)

A.: As a beginner you might prefer to use low magnifications for starters. If you have a simple telescope you will first learn the art of pointing a telescope to a target in the sky. Lower magnifications are helpful. As we will see they will also go along with a larger **Field of View**, known as **FOV**.

Eyepieces have a feature called: the “**apparent field**” expressed in degrees (arc). It is helpful to know that **the full moon has a diameter of ½ degree**.

When you buy an eyepiece you should know the apparent field (**AF**)
e.g. **AF** = 52 deg

To determine the “real field, **FOV** field of view” in your telescope divide the **AF** by the magnification **M** you have calculated (let us assume $M = 40X$)

FOV = AF/M = 52 deg/40 = 1.3 deg that is almost 3 full moon diameters. If you were using an $f=10\text{mm}$ eyepiece and an **AF** = 52 deg eyepiece.

You get

M = 1200/10 = 120X and then Real Field **FOV** = 52/120 = 0.43 deg, so you would just barely get the moon in your telescope field.

Remember the smaller the real field the more difficult it is to find and track an object (manually).