

Using the Telrad finder

Introduction



I had seen the Telrad finder advertised in the American magazines but had never had a chance to use one. The first one I saw was at the 1996 European Astrofest in London.

The Telrad finder works on a similar principle to the head up display seen in aircraft. It consists of a target of concentric rings illuminated by a variable intensity red led, this illuminated target is visible via a mirror and flat glass plate, and is viewed while looking up the scope tube with both eyes open. Holding the Telrad at arms length and moving it around gave the impression that it was dependant on the user keeping their eye in line with it in order for it to be accurate, this doesn't seem to be the case in practice with a remarkable accuracy being achieved. Typically it is very easy to align a star (or planet) within the Telrad's central circle which places it within the field of view of a 9mm eyepiece on a 12 inch diameter telescope (176 magnification).

It can be argued that using a finder without it being a small telescope limits it's use, however, the ease with which it becomes possible to hit an object "first time, every time" makes it well worth the money. There are some optional finder charts to assist Telrad users to find faint objects, a free one is supplied showing how to find M51 which seemed to work well enough. Since buying the Telrad, I've bought a copy of Megastar which can display and print star charts with a Telrad 'bulls eye' superimposed. This has proved very useful and enabled us to find M1 (the Crab Nebula) 'first go' using a 20mm Erfle eyepiece on the 12 inch telescope.



The Telrad is constructed of plastic and features a removable optical section and a fixed base. Spare bases are available to fit to other scopes, although the Telrad itself will probably require re-alignment when changing scopes. The method of fixing is with self adhesive double sided tape, with the option of bolting or screwing the base onto less valuable telescopes. Alignment is via three screws on the rear of the Telrad, this moves a mirror and is very easy to set. Power is supplied from two 'AA' sized alkaline batteries, these last months even though I've sometimes left the unit switched on for a couple of weeks (by accident) and it still keeps working!

There is plenty of room on the Newtonian to fit items like a Telrad, scopes such as smaller SCT's may be limited for available space. With the current 10 inch SCT, the Telrad gets used far more than the 9 x 60 finder scope.

© 2005 Dave's Astronomy Magazine www.astromag.co.uk