

Re: Starhopping, star-strolling, and star-drifting?

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On Sep 4, 10:14 am, "Steve Paul" <smarshallp...@xxxxxxxxxx> wrote:

IIRC, it was Sketcher who once defined his favorite method as PAL (Point and Look).

You recall correctly! I'm (pleasantly) surprised that anyone remembered! The PAL method works best in conjunction with a dark sky and a 1x finder such as any red-dot finder. One basically commits to short-term memory the location of M1 (or any other object) relative to the naked-eye stars in a magnitude 6.5 (near enough to my typical naked-eye limit) atlas. One then finds the same star pattern in the sky (some familiarity with the constellations is presumed) and plant the red dot exactly on M1's memorized position. For the final step one simply looks into the primary telescope's low-power, wide-angle eyepiece and viola! There's M1 staring right back at you! (With hand-held binoculars one can do this without the aid of a finder).

The PAL method fails when there's a multitude of faint galaxies (etc.) within a *small* area of sky. In such crowded situations I often resort to a detailed atlas (such as the Millennium Star Atlas) and use a low-powered, wide-field eyepiece with a known true FOV (information that any halfway serious observer ought to have measured and recorded). With these tools in hand it's easy to use the primary telescope (or for really large telescopes -- the magnifying finder) to match the star patterns in the atlas with those seen through the telescope -- with due regard to "correct" image orientation in the finder and primary telescope. (A 90-degree, erect-image diagonal works well with refractors. Many of the 45 degree, erect-image diagonals tend to be too poor in the quality department). I've navigated in this manner with refractors as well as with reflectors. Of course, computer generated charts can be substituted for commercially printed atlas charts.

I've experimented a bit with scanning regions of sky one square degree at a time using an eyepiece that has a one-square-degree field (thanks to a homemade, square fieldstop), the Millennium Atlas (with lines of constant declination plotted for every degree of declination) and an

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equatorial mount (allowing the scope to smoothly move along the lines of constant declination. Of course, one adjusts the eyepiece so that one pair of sides of the square field stop run parallel to the lines of constant declination. Such an arrangement works very nicely if one is interested in scanning the night sky via telescope one atlas page at a time.

Then there are methods of pointing a telescope (or mounted binoculars) at a star, comet or planet in the daytime sky utilizing a simple, non-computerized, alt-az mount (It **can** be done. I've done it for stars, planets and even for one daytime comet).

There are numerous methods that can be used by the creative amateur. In the end, it's a situation of "whatever works for you".

Bill Greer

To sketch is to see.

<http://cejour.blogspot.com>

<http://www.rangeweb.net/~sketcher>