

The Eagle Nebula, M16

In a prior article **I**, I told you about SuperNova, SN2007af, a dying star. Subsequently I explained how to find stars in the sky. Today I write about a place where stars are being 'born'.

The Hubble Space Telescope, HST, gave us the famous photos of M16, The Eagle Nebula (or Star-Queen Nebula). This nebula has the three "pillars", beautiful clouds of dense gas from which stars are being formed NOW.

The Eagle is 'nearby' but still 7,000 l-y from us and located in the Sagittarius arm of our Milky Way Galaxy. We see it in the constellation Serpens, its brightness is mag 6.5 and its coordinates are 18h 18.8-1347. Remember that means: RA= 18h 18' 48" (RA hours) and DEC= -13d 47' (d = degrees-of-arc).

Magnitude 6.5 indicates that you'll need a telescope; mag 5 is about the dimmest star you can see with the unaided eye. To get a picture of the Eagle you need a 12" telescope and CCD camera, but a 'glimpse' can be had with a 4" scope already. Trying to get a glimpse will result in more appreciation for the HST photos that have been published widely. You paid with your taxes for the HST; these images are your photos too!

Membership in the Starsplitters will give you the opportunity to picture The Eagle yourself; that is after you have mastered the techniques of CCD imaging and the operations of our 16" Huser telescope. Not all that easy, but with some efforts it can be – and has been - done.

Let's find our Eagle first. Assume it is Sept. 8 and 10:00PM at Wyalusing (still DST!). The meridian is then at RA= 16:28 + (10:00 – 5:21) – 1 = 20:07 h-RA; remember 8 months and 7 days after 01/01/07 and 5:21 being the time that day when RA 0:00 is on the meridian at Wyalusing State Park.

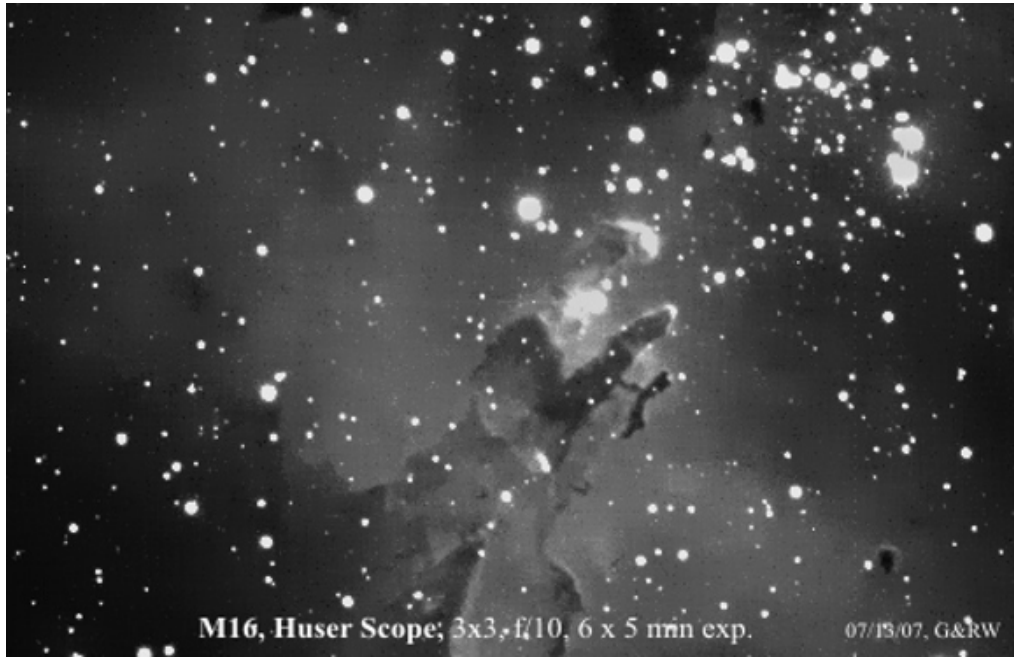
The Eagle, at 18h18'48" h-RA and –13d47' DEC, you find on chart #67 of Sky&Tel's Pocket Sky Atlas. We have to look thus 1h48' (h-RA) west of the meridian, or about 27 degrees-of-arc (1 h RA = 15 degrees-of-arc) and 27 degrees correspond with 'pink-to-thumb and a little bit' as you recollect.

Locate the "Summer Triangle": Deneb, Vega & Altair as you already know. Sixty degrees SW of Altair is bright Antares (Sco). Pick the halfway point and from there go SE 7 degrees. There is your Eagle, about 4 degrees west of gamma-Scu, the southern star of that skinny diamond asterism. Our "GoTo" scopes make it even easier to find.

Now you are there anyway, look for the asterism "Teapot" in Sagittarius. The center of our galaxy is 4 degrees west of its 'spout' and a large "black hole" is there, which you cannot see, of course. But you can see M8, Lagoon Nebula, 9 degrees north of the Teapot's spout. The nice Trifid Nebula, M20, is nearby, 1.4 degrees NW of M8.

South of Eagle, about 2 degrees, is the Swan, M17. On chart #67 of the Pocket Sky Atlas you find a lot more 'stuff' in that area of the Milky Way. So hang around there for a while and enjoy.

We'll be taking more photos of this area with the large Huser Scope this month. Don't forget to check our web site where I'll be posting some of our nicer images. You'll find them on www.wyalusing.org and then click on Stargazing. Till next time; Clear Nightskies, GW



M16, Huser Scope; 3x3, f/10, 6 x 5 min exp.

07/13/07, G&RW