

**Recent CCD Images:** By Greg Morgan

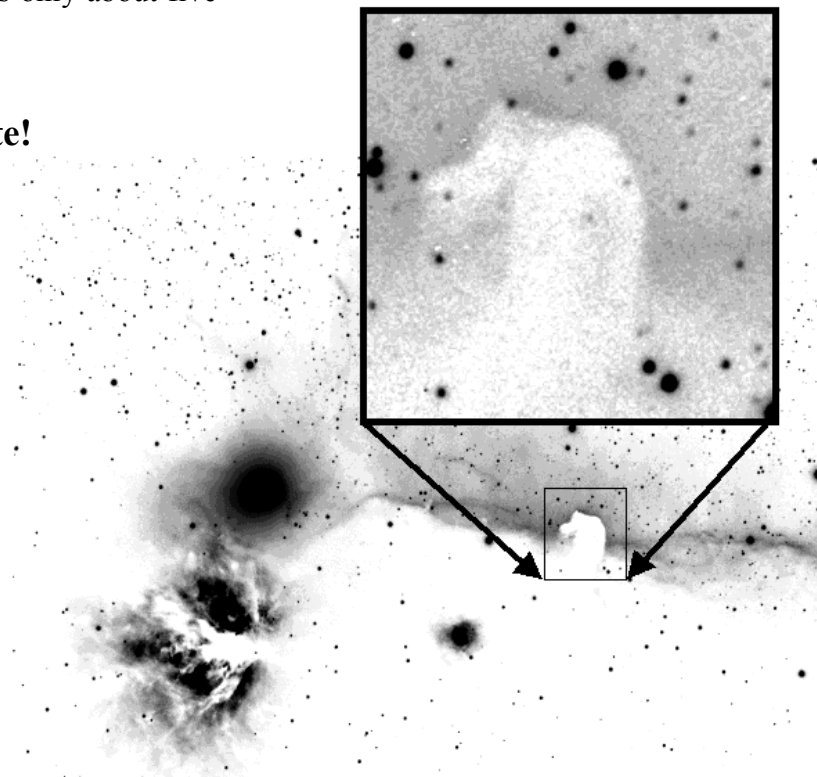
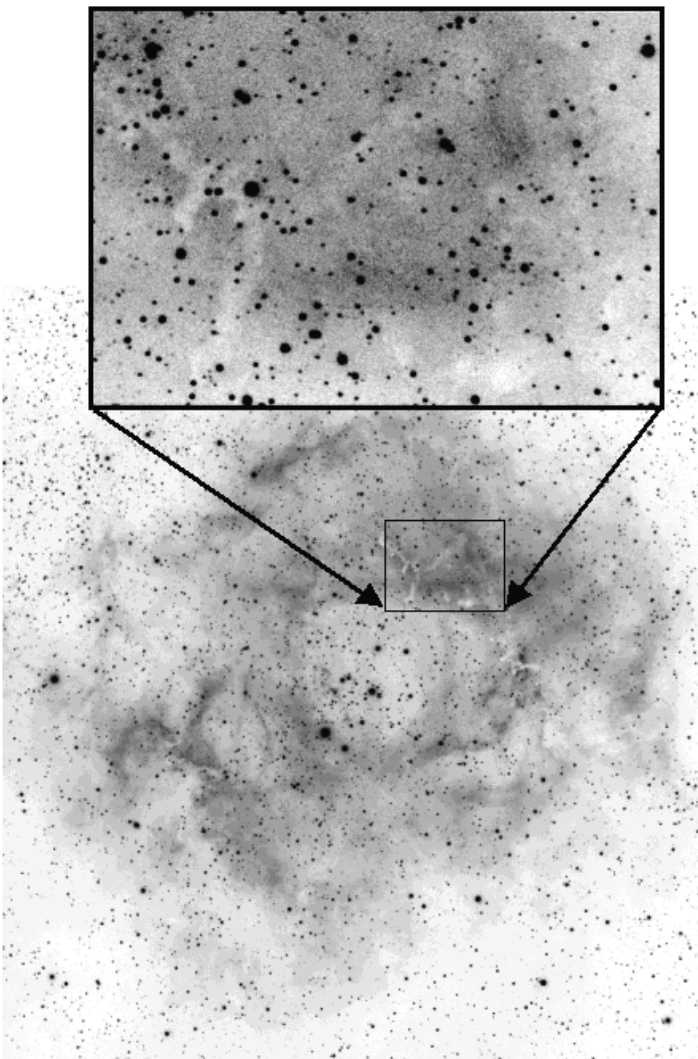
## The Rosette Nebula & The Horsehead Nebula

These are some of my first attempts at “long” exposure photos. The Rosette Nebula and the Horsehead Nebula insert images are 50 and 40 minutes respectively. The pictures are the “negative” which helps to aid in their clarity for printing in the newsletter. Short exposures have been accomplished thus far with my Alta-Az mount. Field rotation has prevented the desired long exposures necessary for deeper objects. My new wedge, hand made by Ken Milburn of Sumner Washington, allows me to now polar align the scope. Switching from the Alta-Az to the polar alignment eliminates field rotation and will allow me to make longer integrations in the future. CCD images have better signal to noise ratios (less graininess) when multiple images are stacked on top of each other. Higher contrast images can be made when a filter or filter combinations are used. I will be trying both of these techniques to enhance esthetics and make “pretty pictures” in the future.

The Rosette nebula is rather large. It is about one degree in diameter. Even with my scope at f/4, the ST-7 chip only captures the inner workings of the nebula. The Horsehead complex which includes the Flame nebula is also very large. The “horse” itself is only about five minutes across. GM

**This horse is only 5' wide!**

**A triple “lane” conjunction inside the Rosette!**



**Fig 1 (above right):** The insert image was taken by Greg Morgan on 2/10/02 with the 10” SCT f/4 ST-7 OIII filter 8x300 seconds. This image wasn’t as sharp as one taken 1/30 however, it has better contrast because of the filter. The wide field image was taken by Gary Stevens with the T FSQ 4” f/5 with filters.

**Fig 2 (left):** The Rosette Nebula. The insert image was taken by Greg Morgan on 2/6/02 with the 10” SCT f/4 ST-7 unfiltered 10x300 seconds. The wide field image was taken by the (professional) amateur Robert Gendler. His images are featured on the cover of the March Astronomy magazine. This image was taken with the T FSQ 4” f/5 with filters to boost contrast.