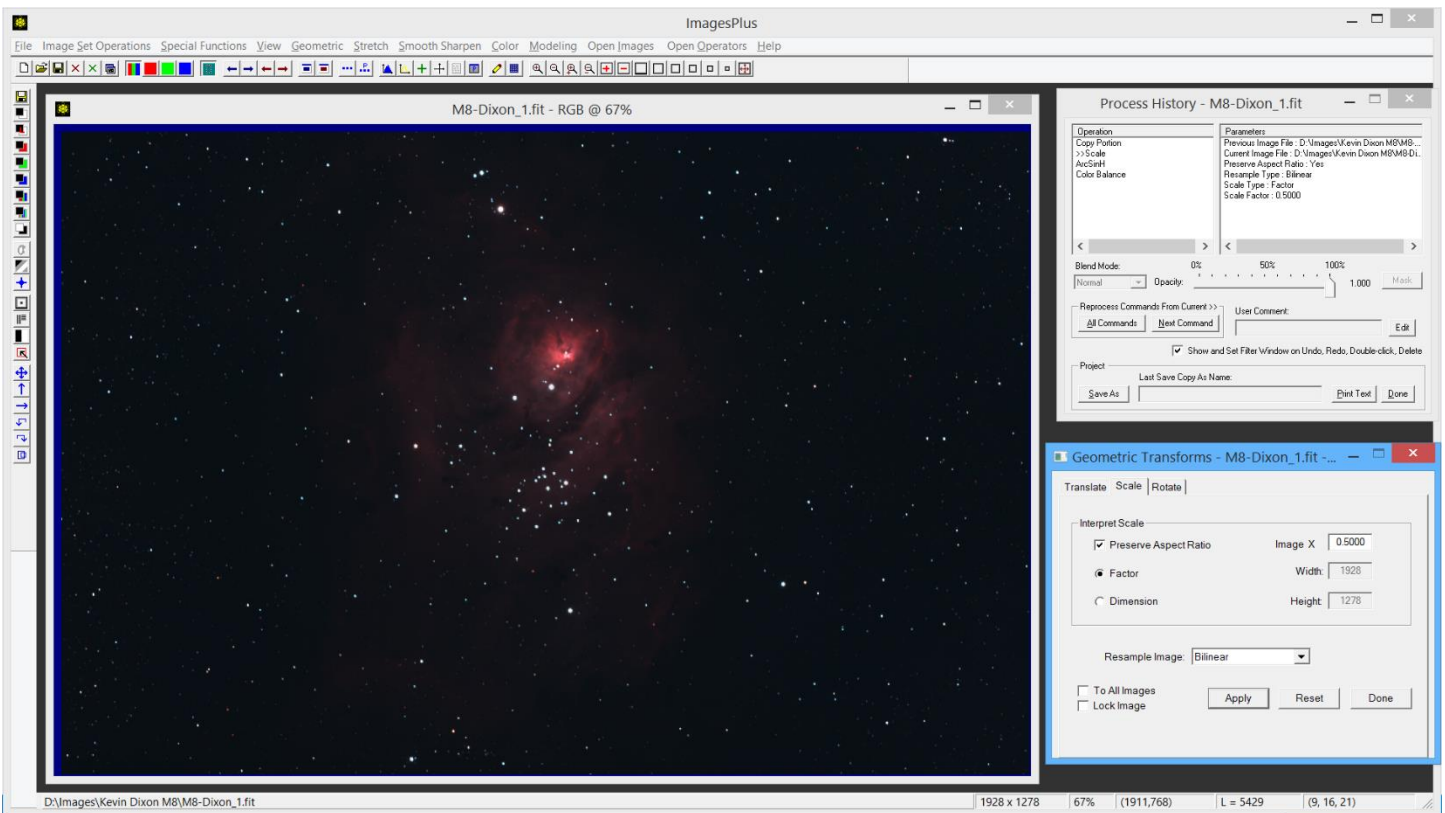
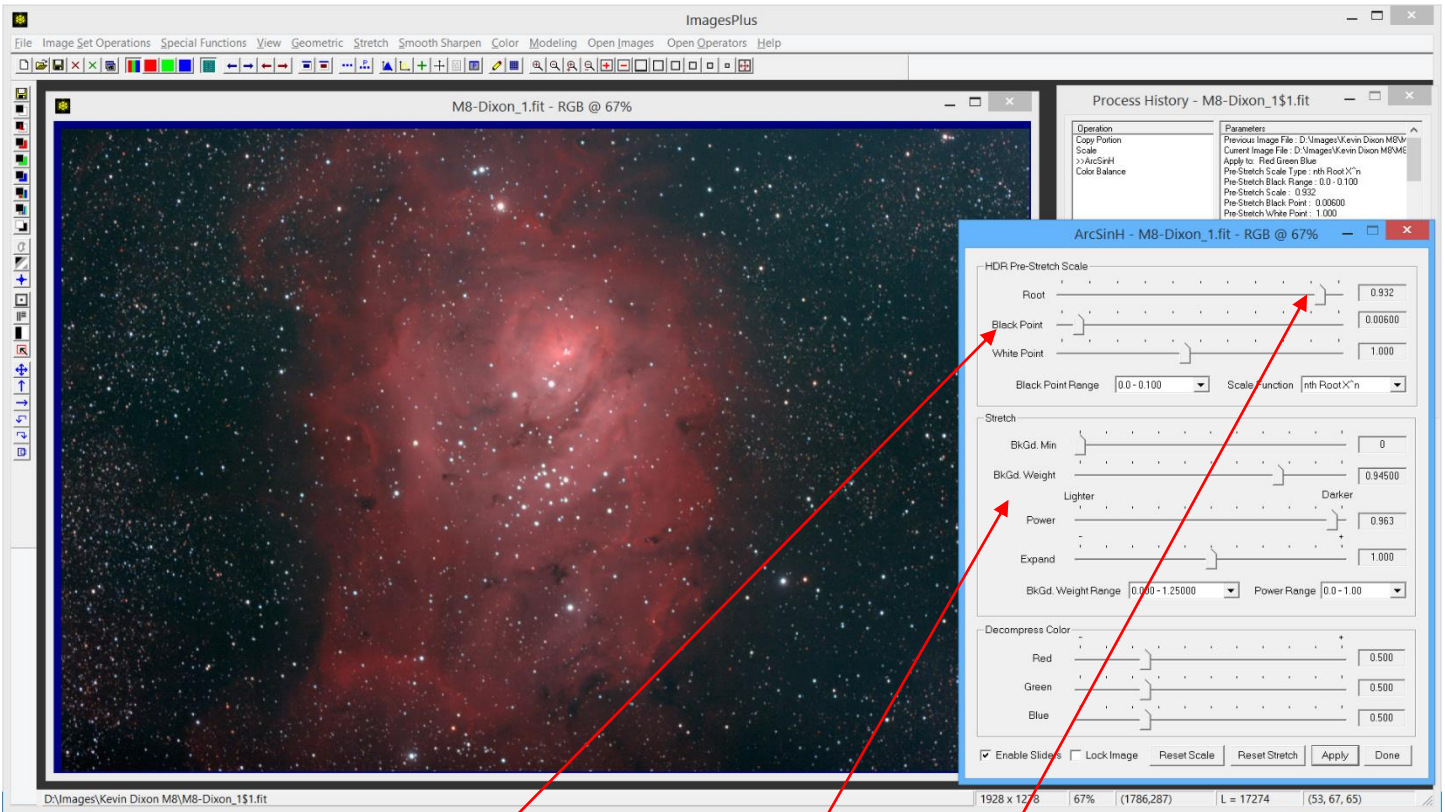


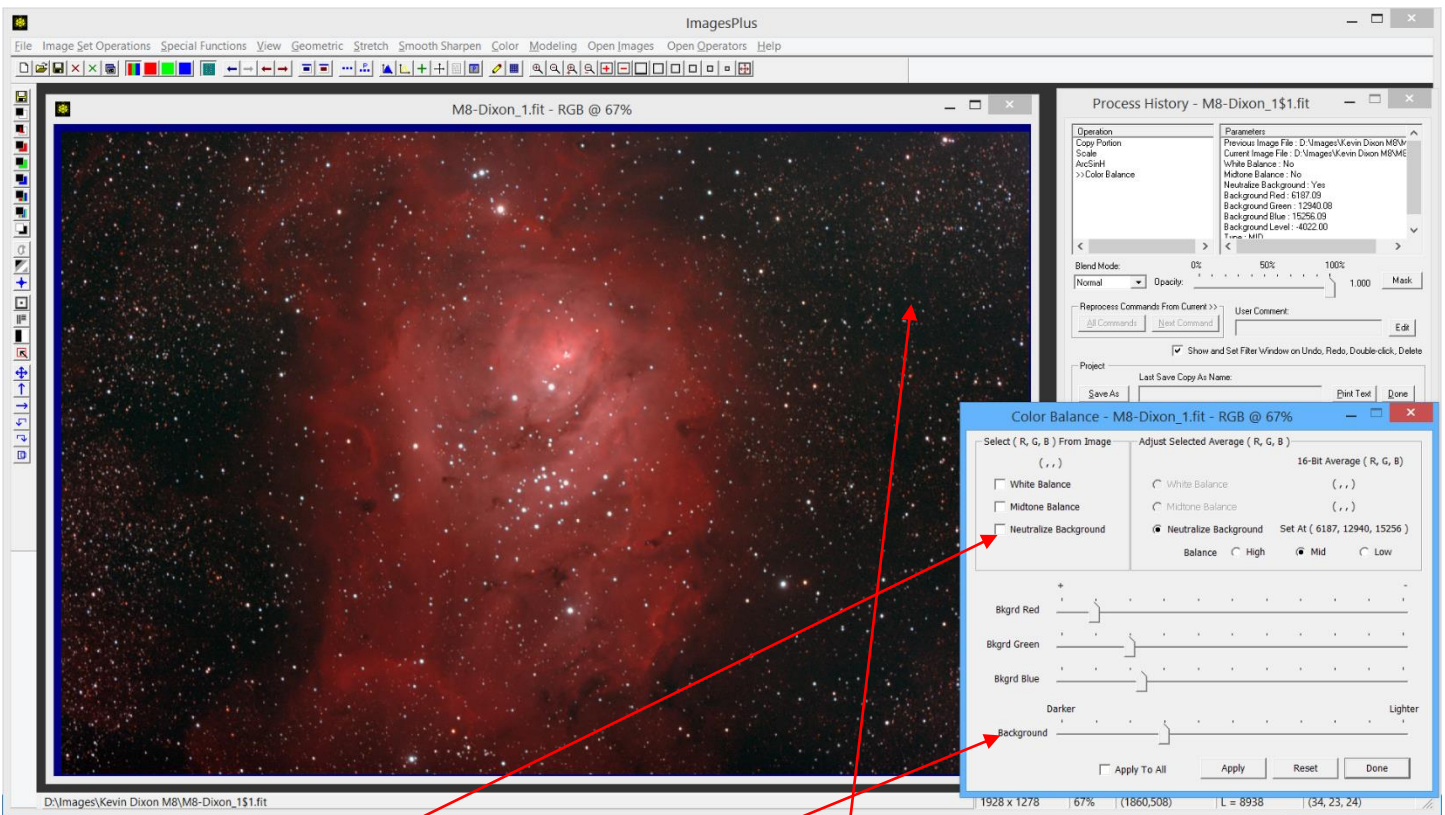
Step 1) Press the Copy Portion toolbar button then left-click and drag a rectangle to crop the image. Press the Copy Portion button again to turn off cropping.



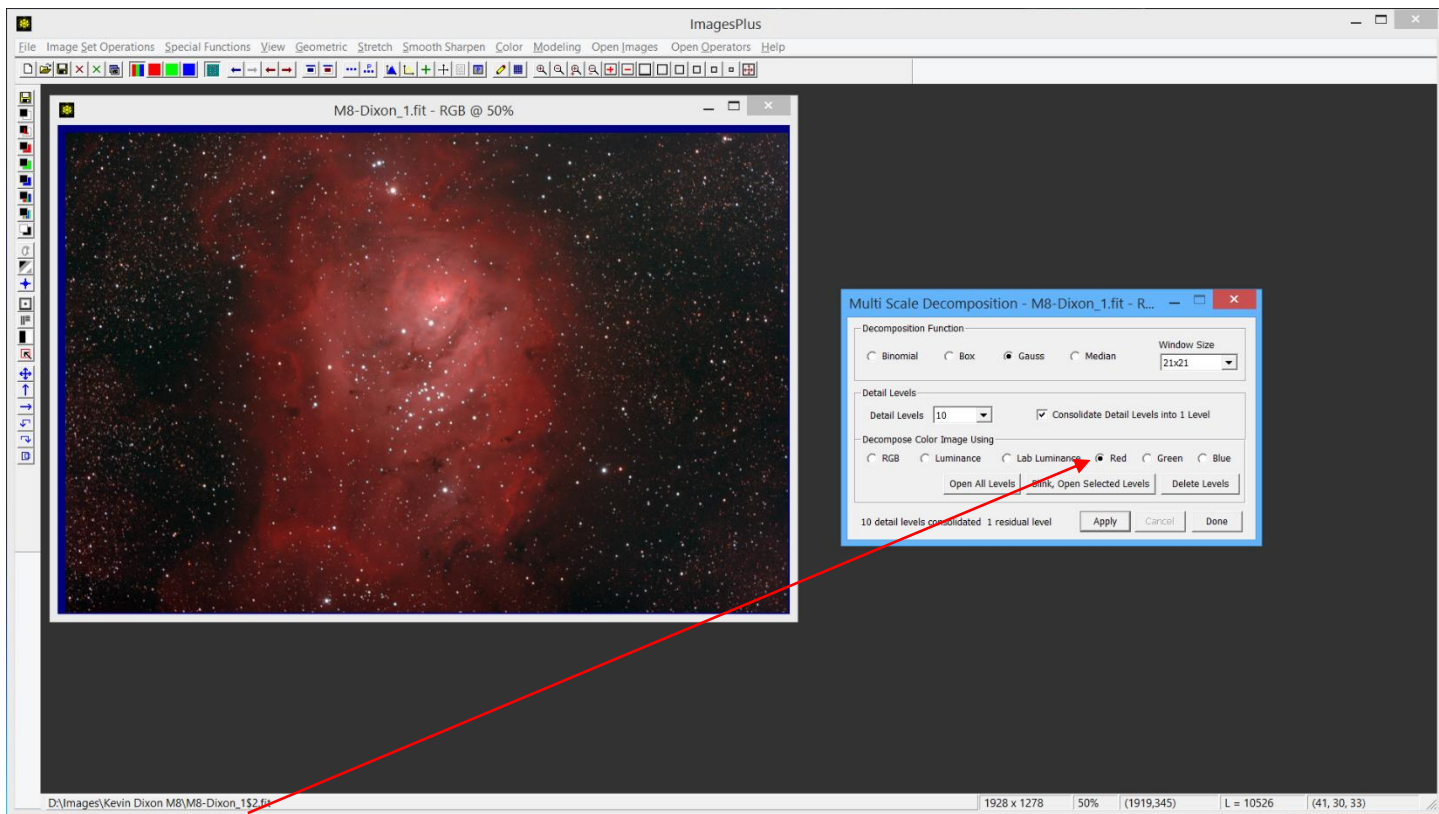
Step 2) Scale the cropped image by 0.50 to reduce its size to the final display size. Scaling the image at this stage smoothes the image a little and is usually the only smoothing that needs to be applied.



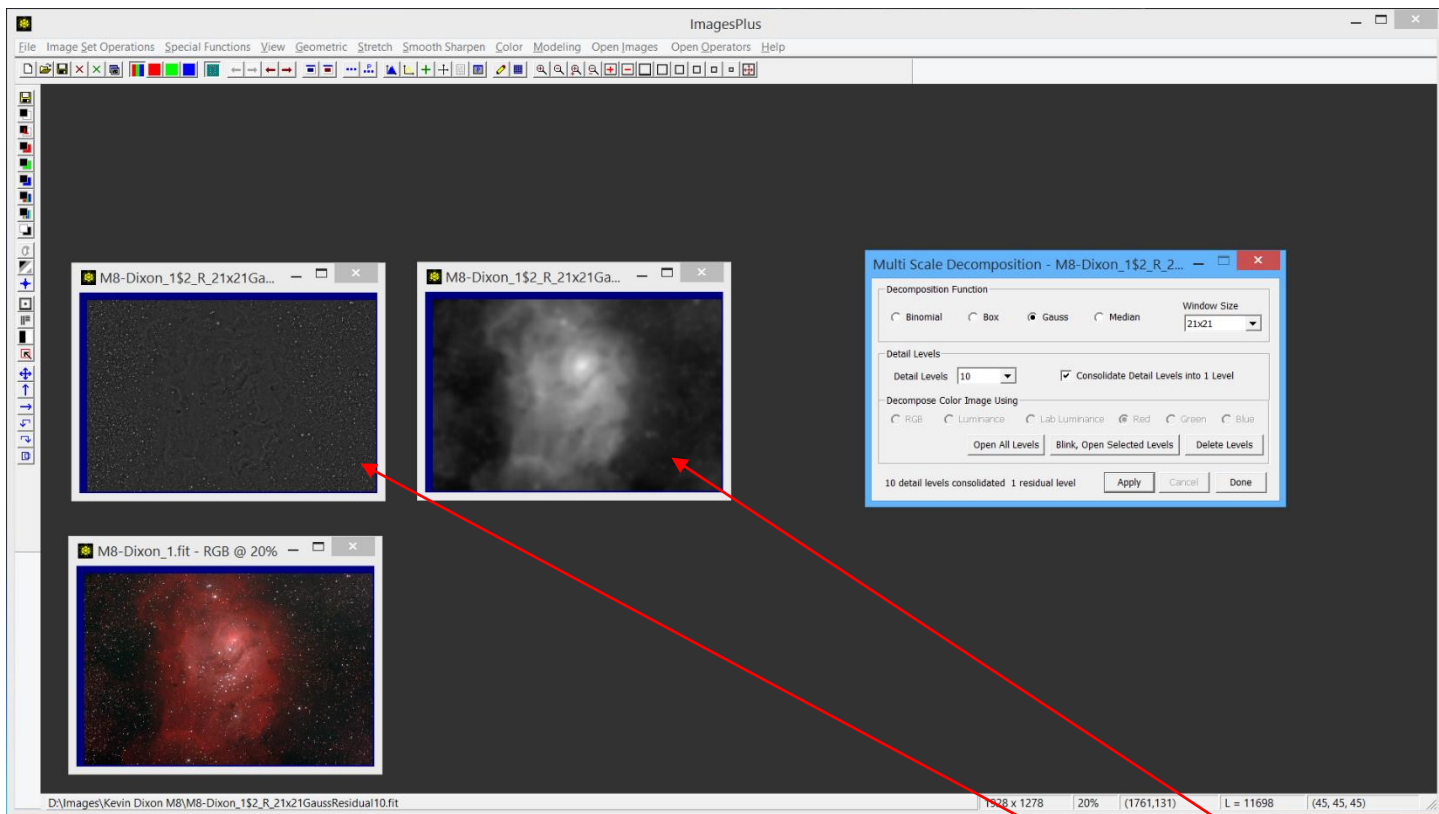
Step 3) ArcSinH is used for the initial stretch. First adjust the Power and BkGd Weight sliders to get a bright nebula and dark background with no clipping. Next adjust the nth Root Xⁿ pre-stretch scale Root slider towards the left to brighten faint nebula detail. Adjust the Black Point slider so that the background is not clipped.



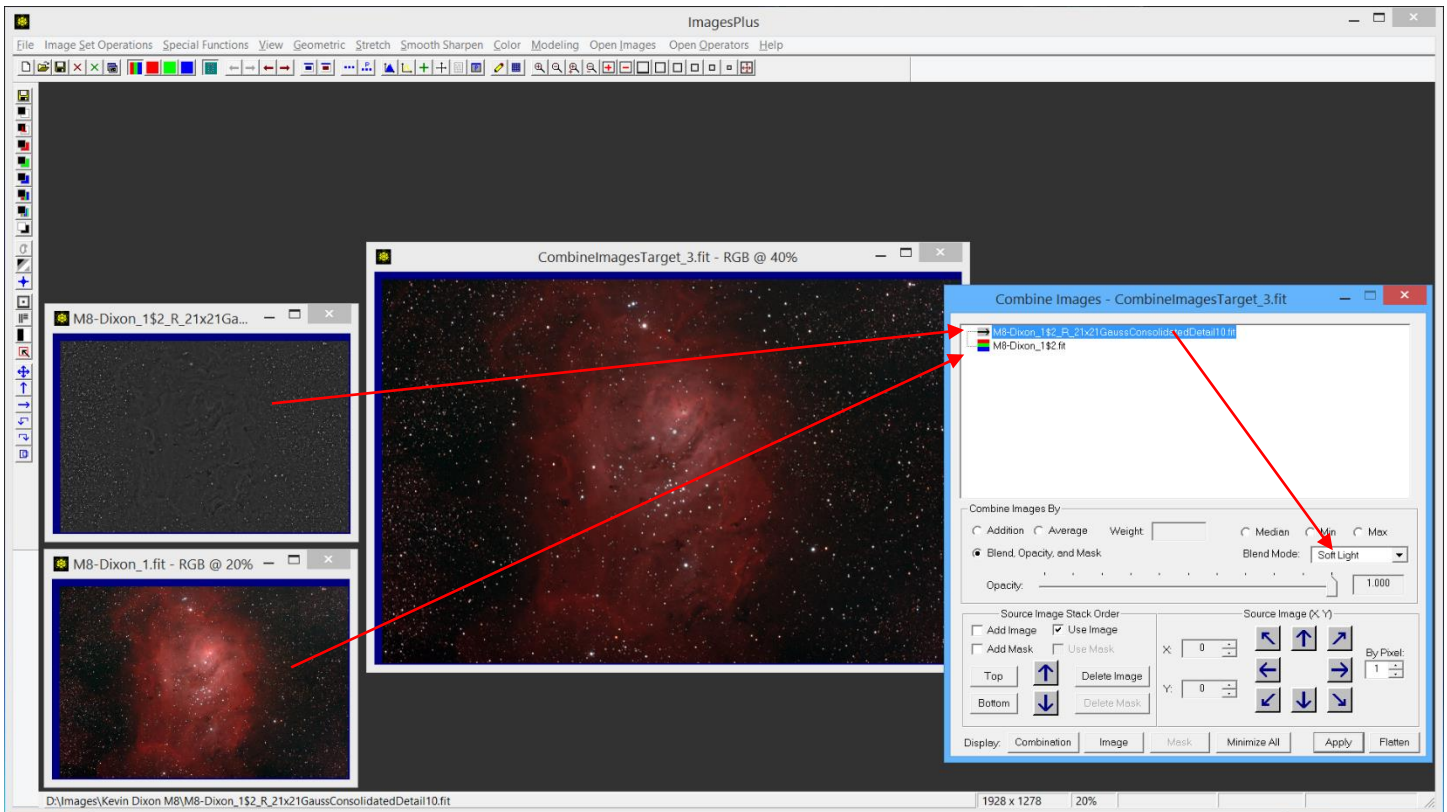
Step 4) Check the Neutralize Background box on Color Balance then left-click on the dark background that should be dark gray to balance the background. Adjust the Background slider towards the left to darken the background.



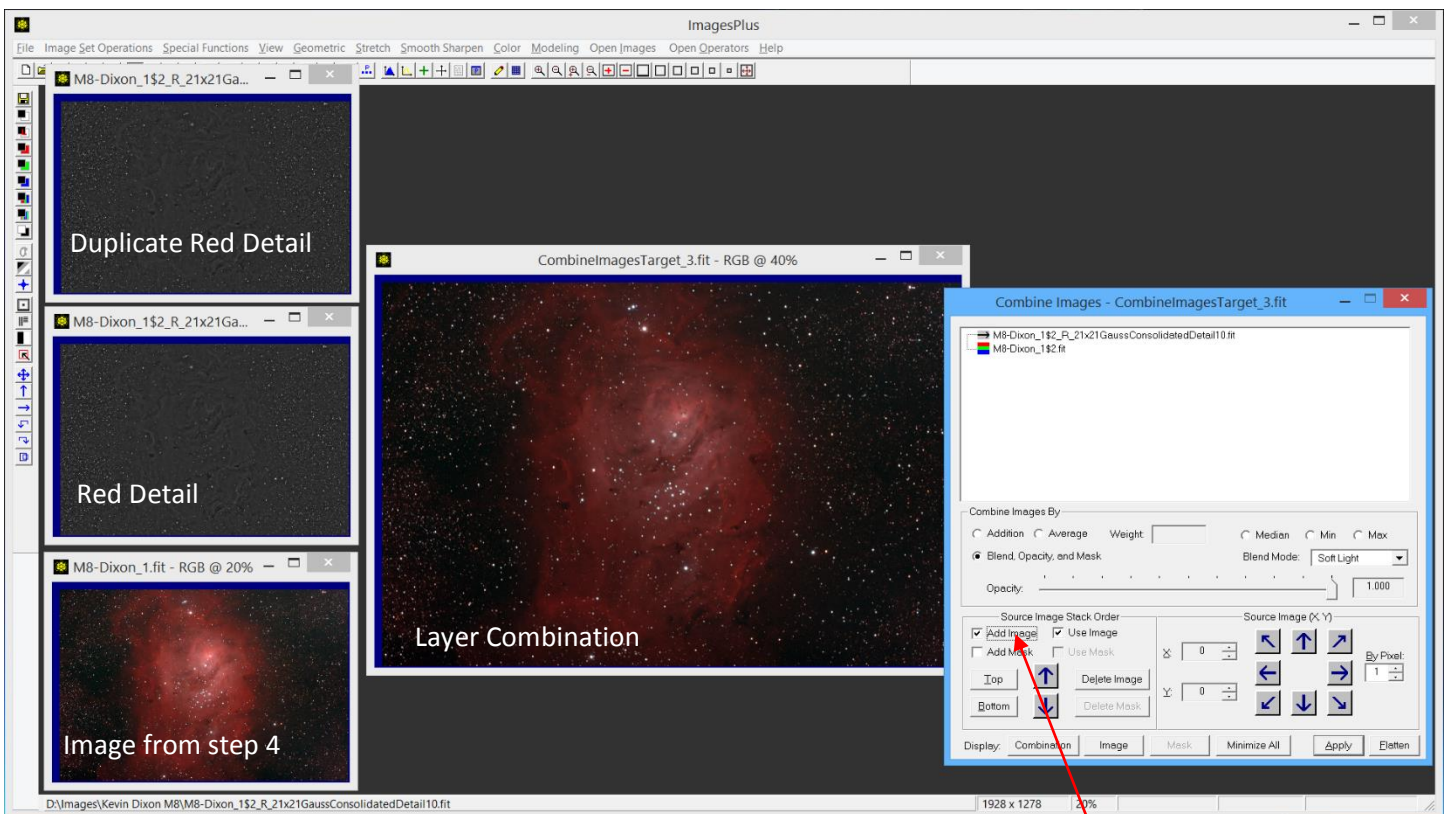
Step 5) Split the red data using the Multi Scale Decomposition tool into a detail and residual background image.



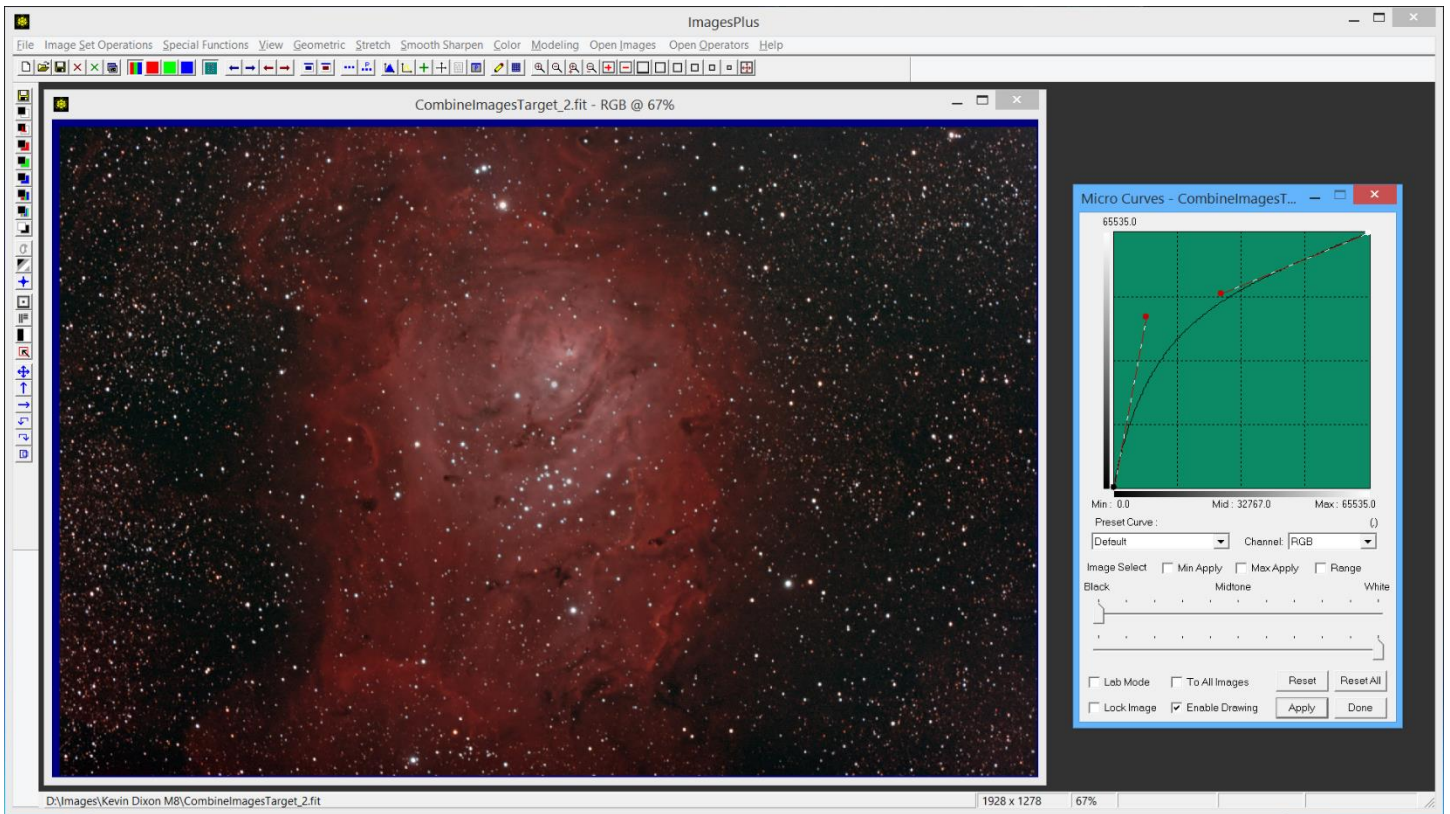
Press the Open All Levels button on the Multi Scale Decomposition tool to open the detail and residual background images. Close the residual background image and the Multi Scale tool.



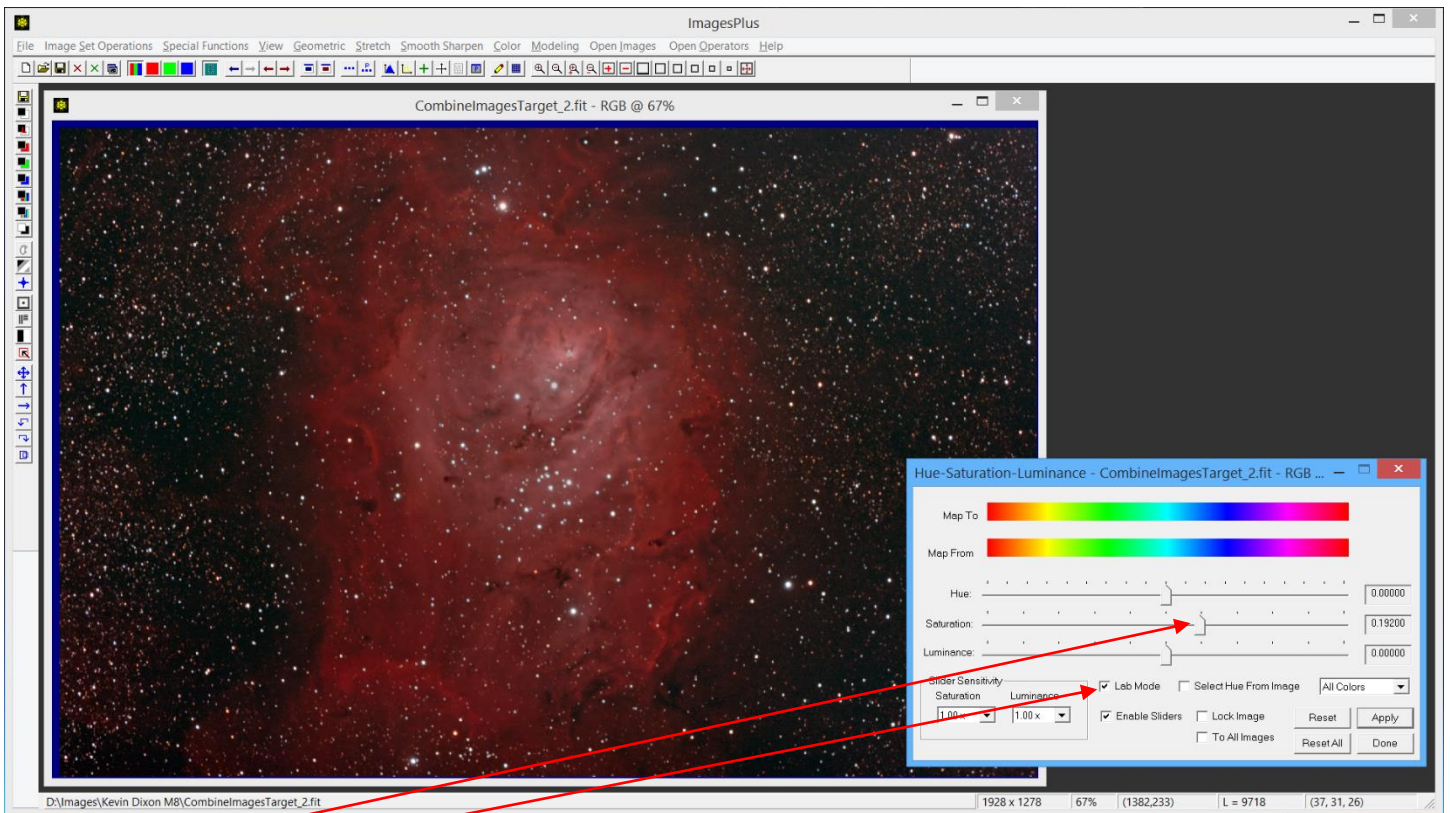
Step 6) Use the Combine Images layer tool to increase contrast and detail. Use the M8 image from step 4 as the bottom layer and the red detail image as the top layer with soft light blend mode.



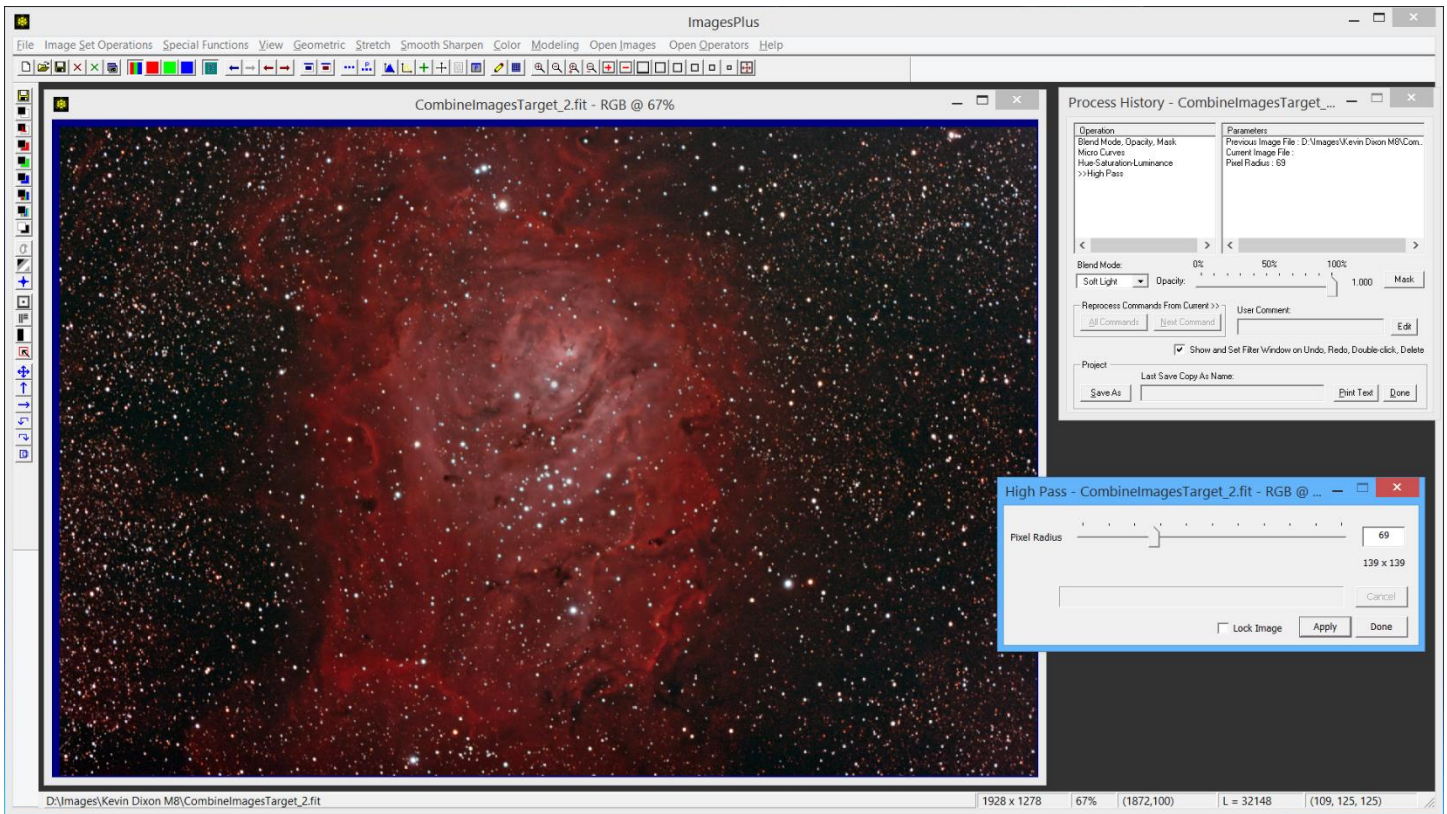
Step 7) Duplicate the red detail image using the Duplicate toolbar button. Check the Add Image box then left click on the duplicate red detail image to add it to the top of the layer tree. Change the blend mode of the top layer to soft light. The second red detail layer doubles the contrast and detail enhancement that is applied to the image from step 4.



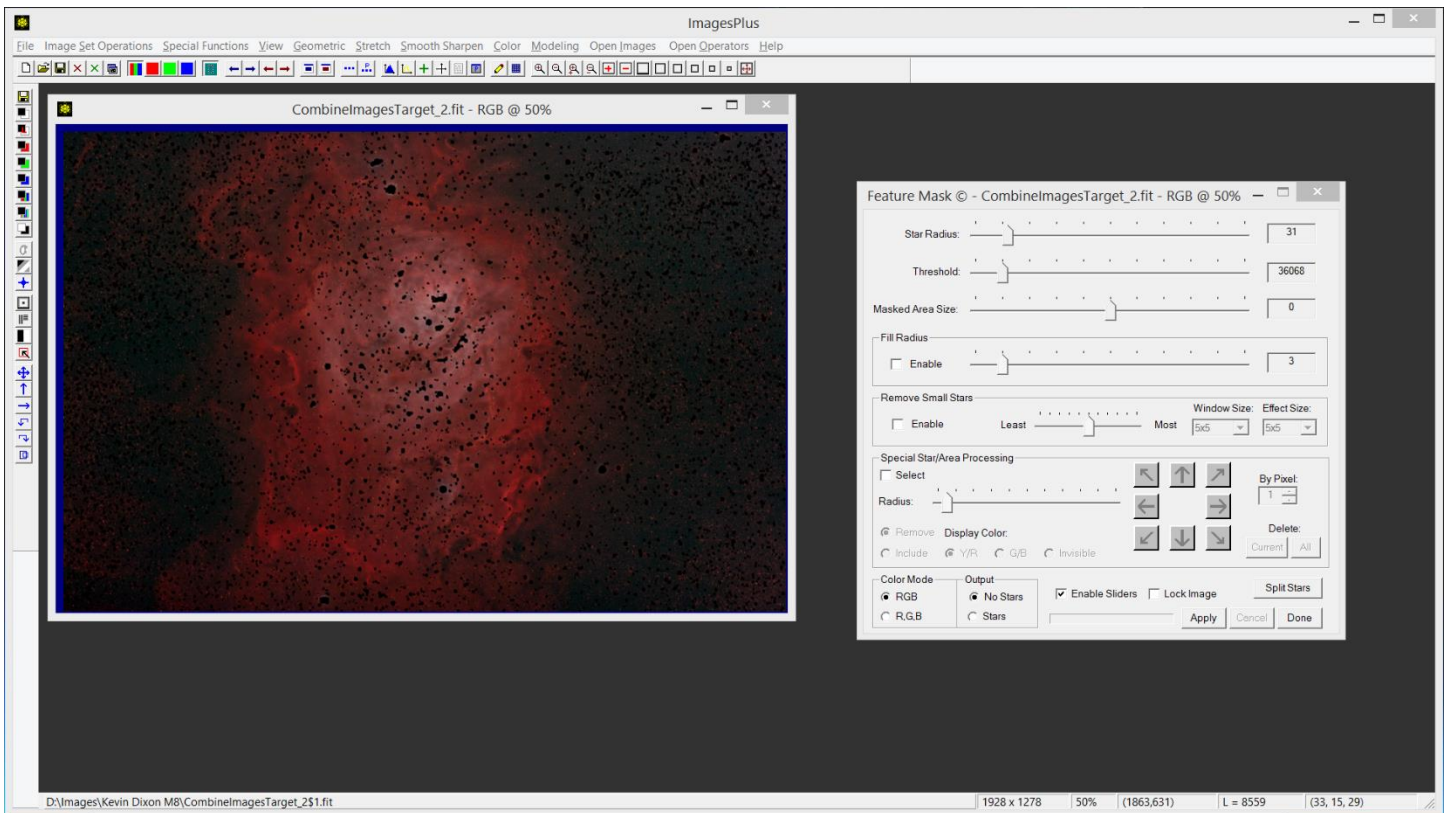
Step 8) Flatten the combination image and close all images and tools except the layer combination image. Curves is used to brighten the combination image.



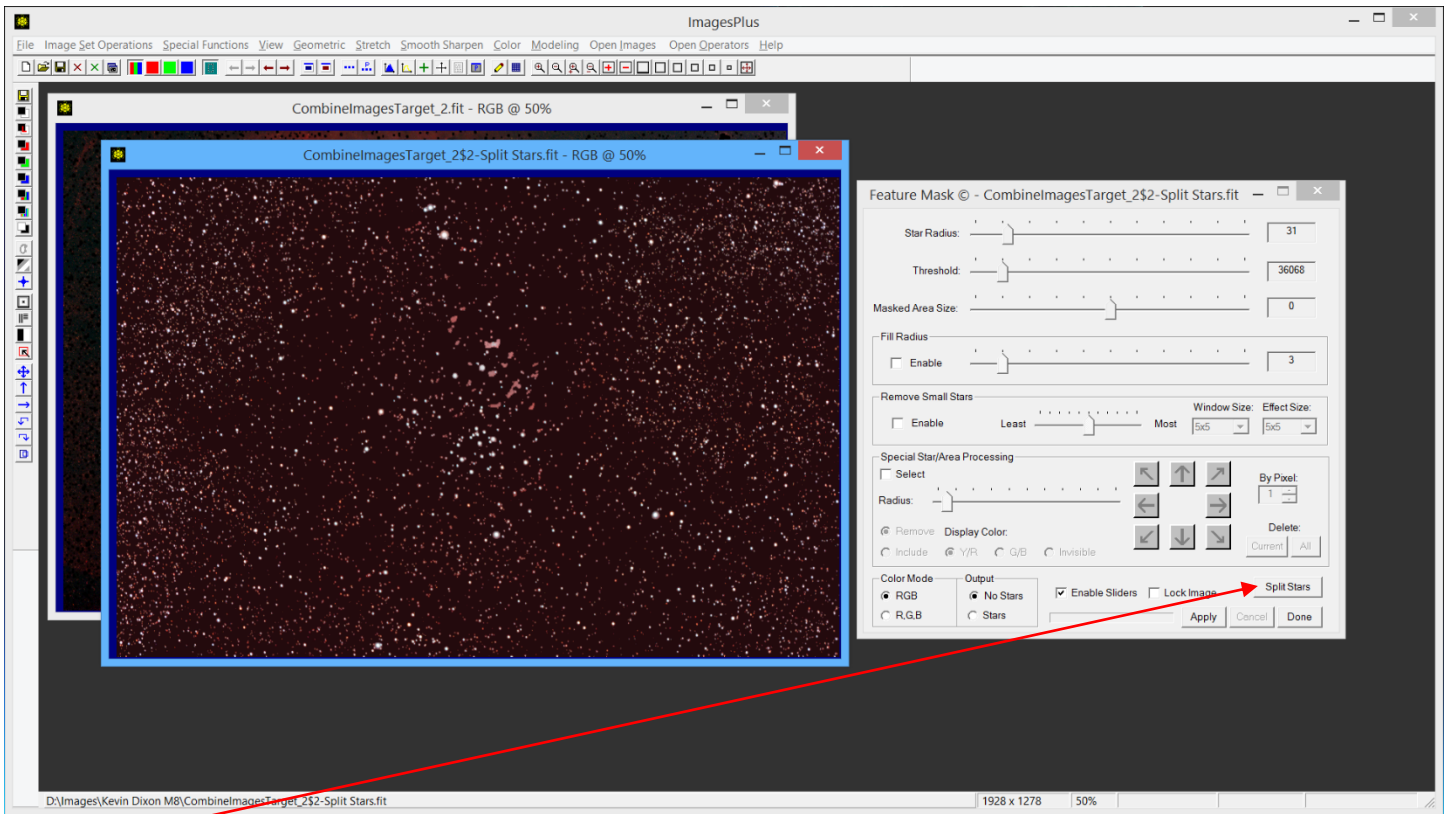
Step 9) Increase saturation in Lab mode.



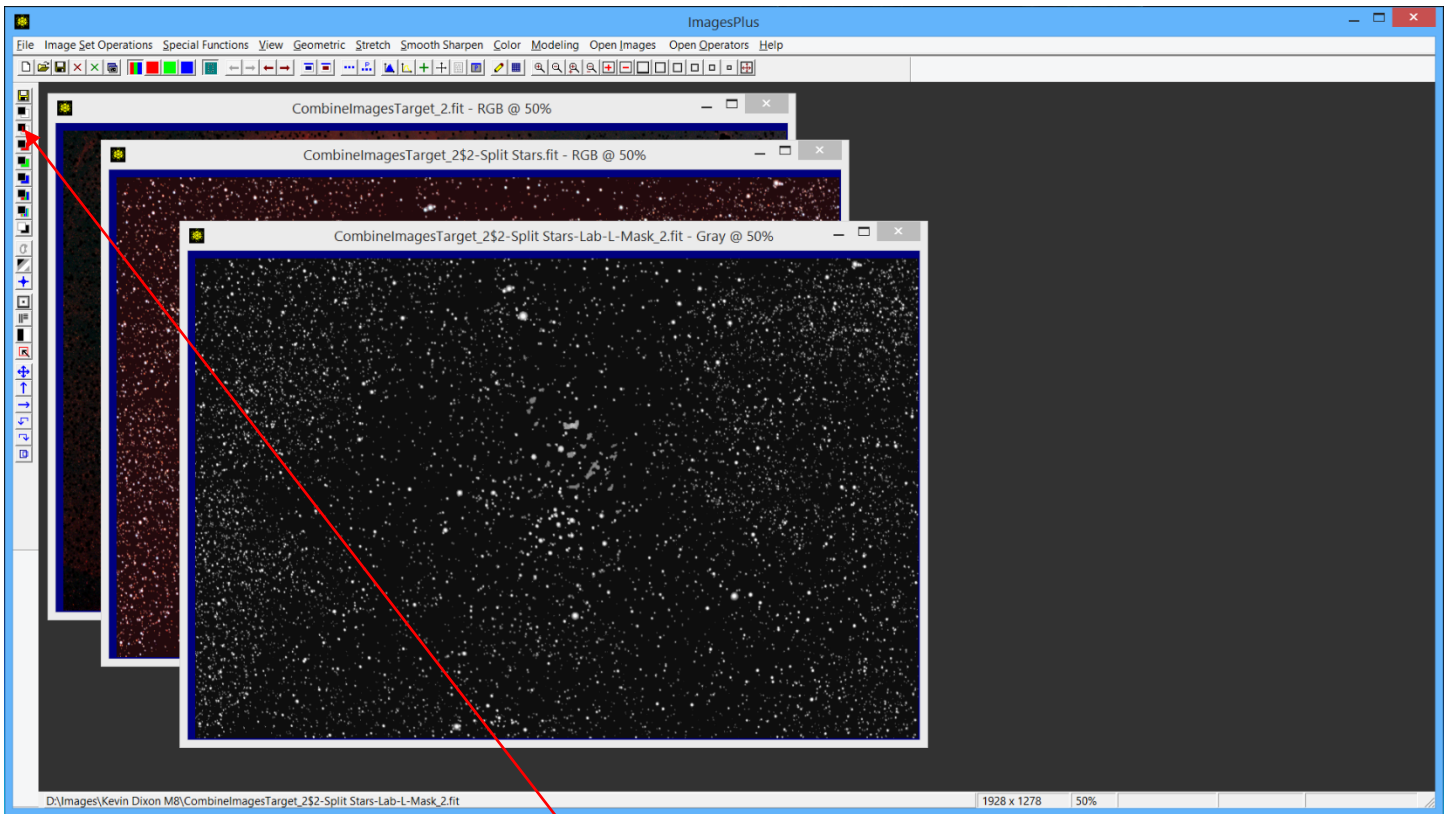
Step 10) High Pass is used to sharpen and increase contrast. Soft light blend mode is set to blend the high pass filter image with the previous image. High Pass increases star size a little so the remaining steps show how to reduce star size.



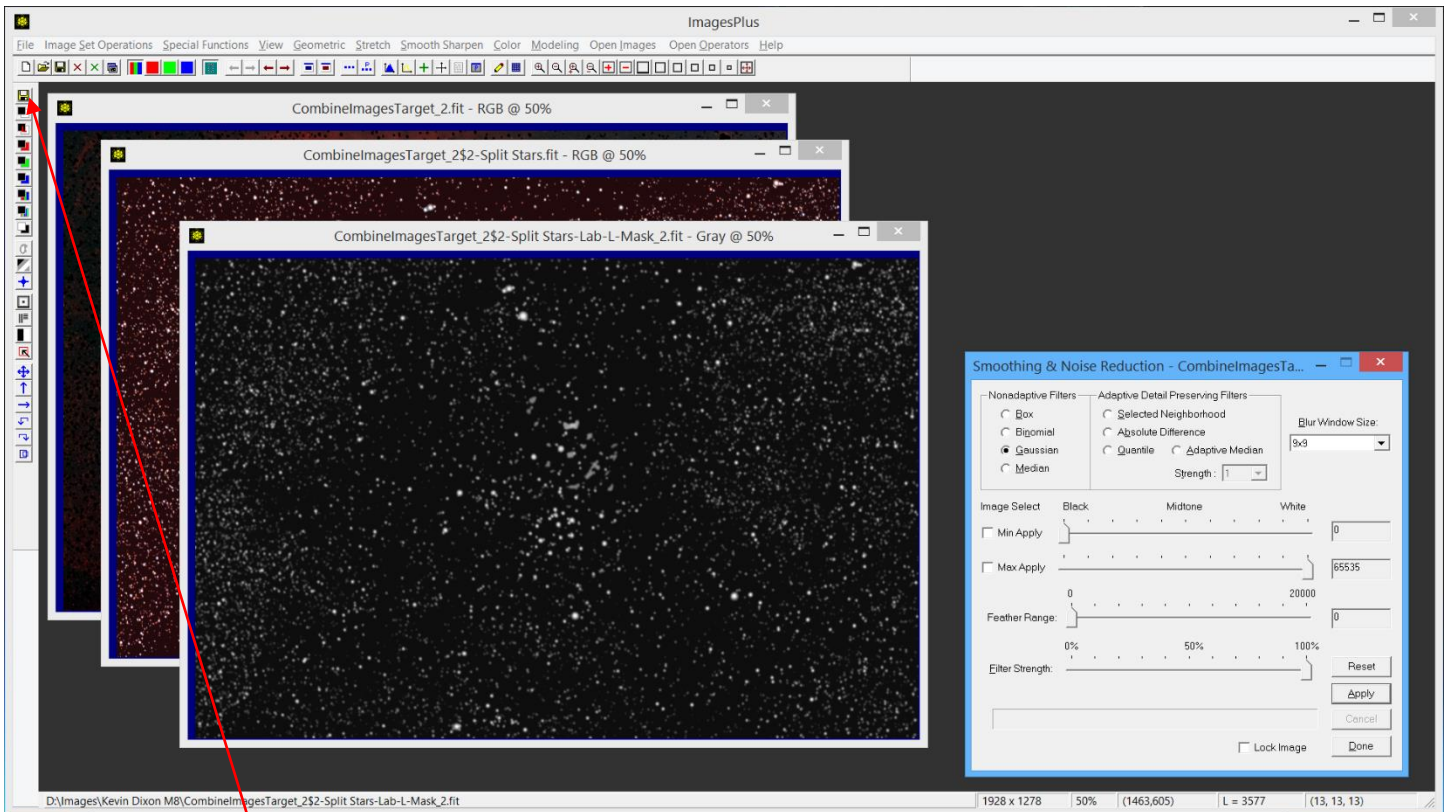
Step 11) A star mask will be created so first use the Feature Mask tool to remove stars from the high pass image.



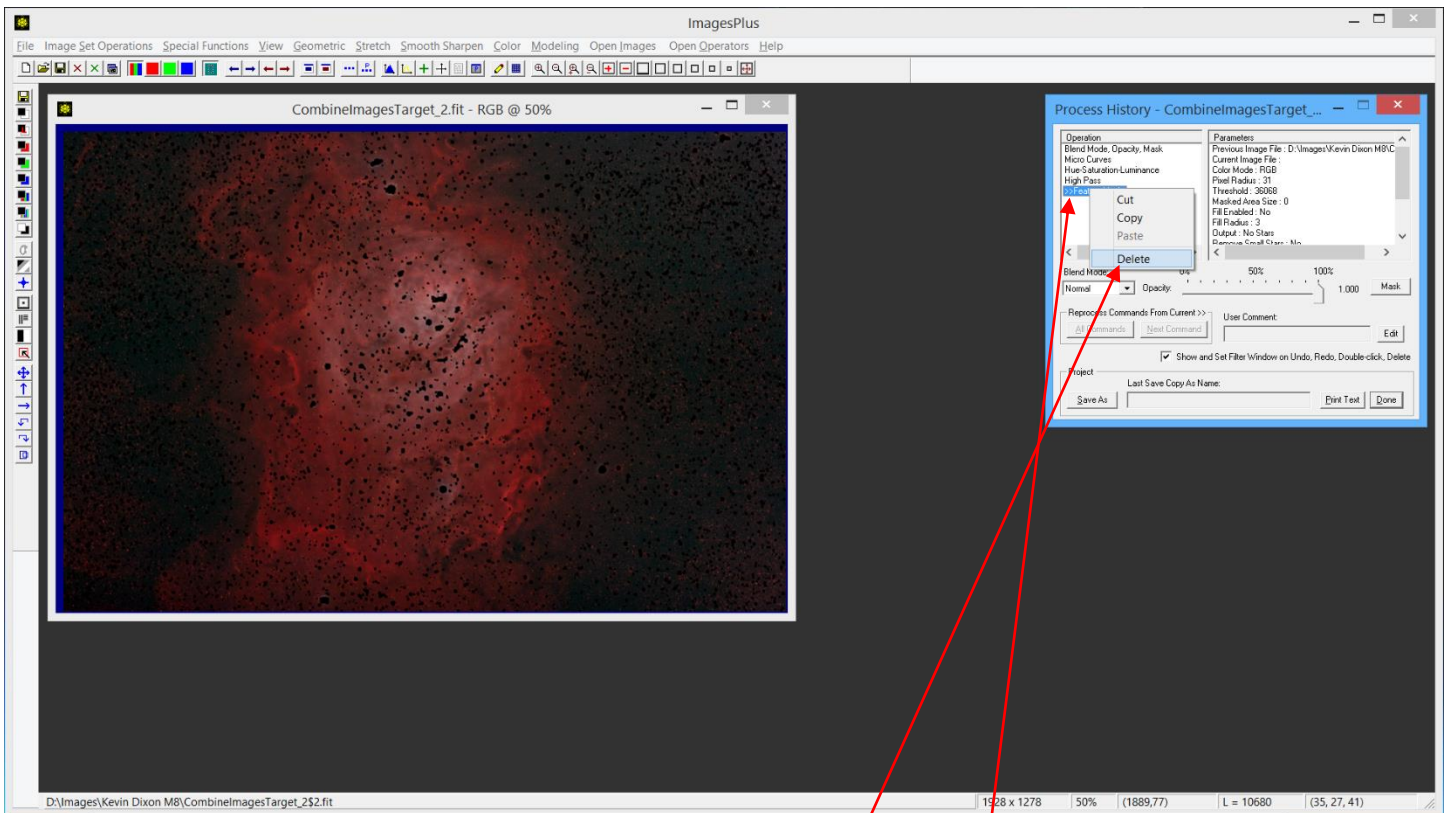
Press the Split Stars button to create a star only image.



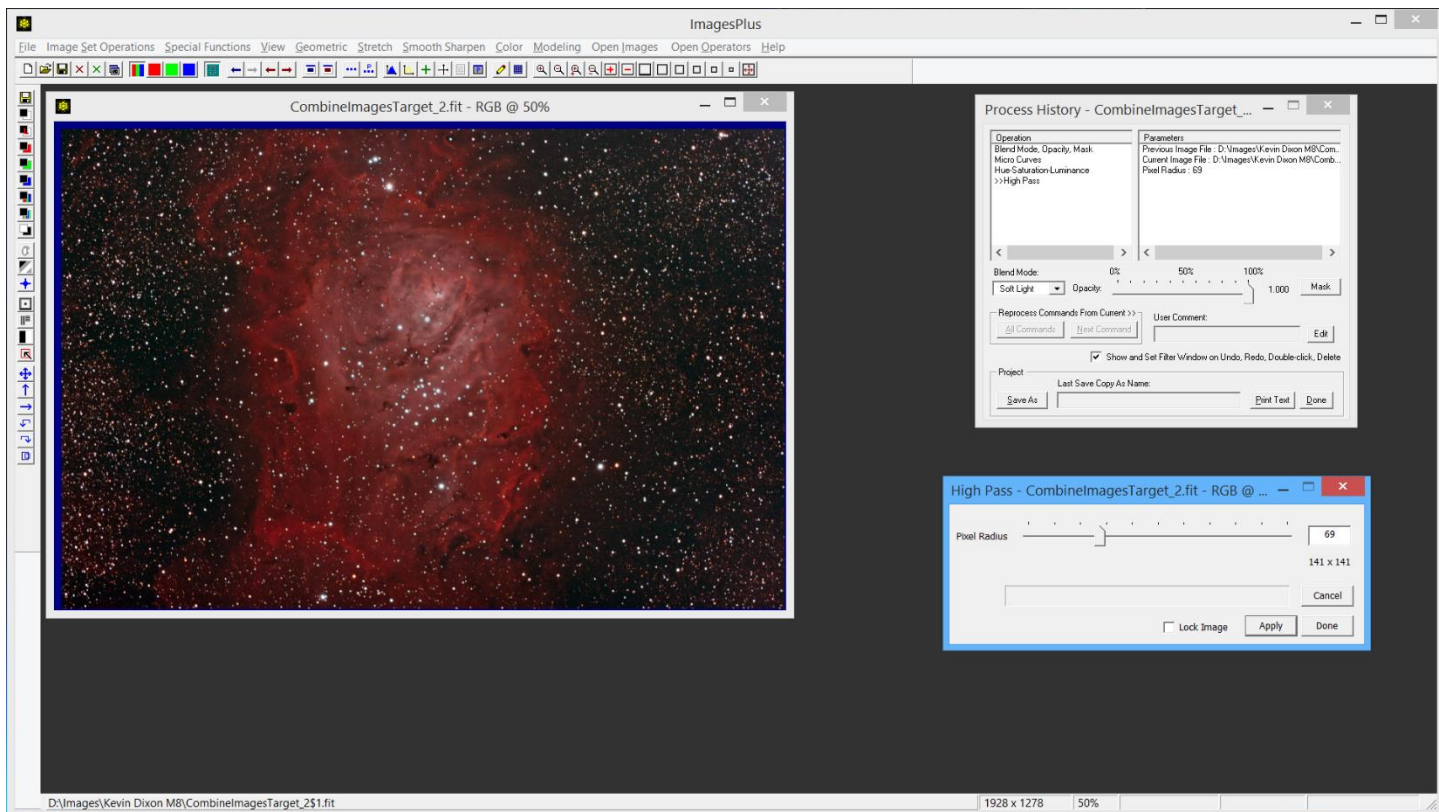
Close the Feature Mask tool then apply the Lab Luminance toolbar button to the color star image to create a single channel monochrome grayscale image of the stars. A mask in ImagesPlus is always a single channel gray scale image.



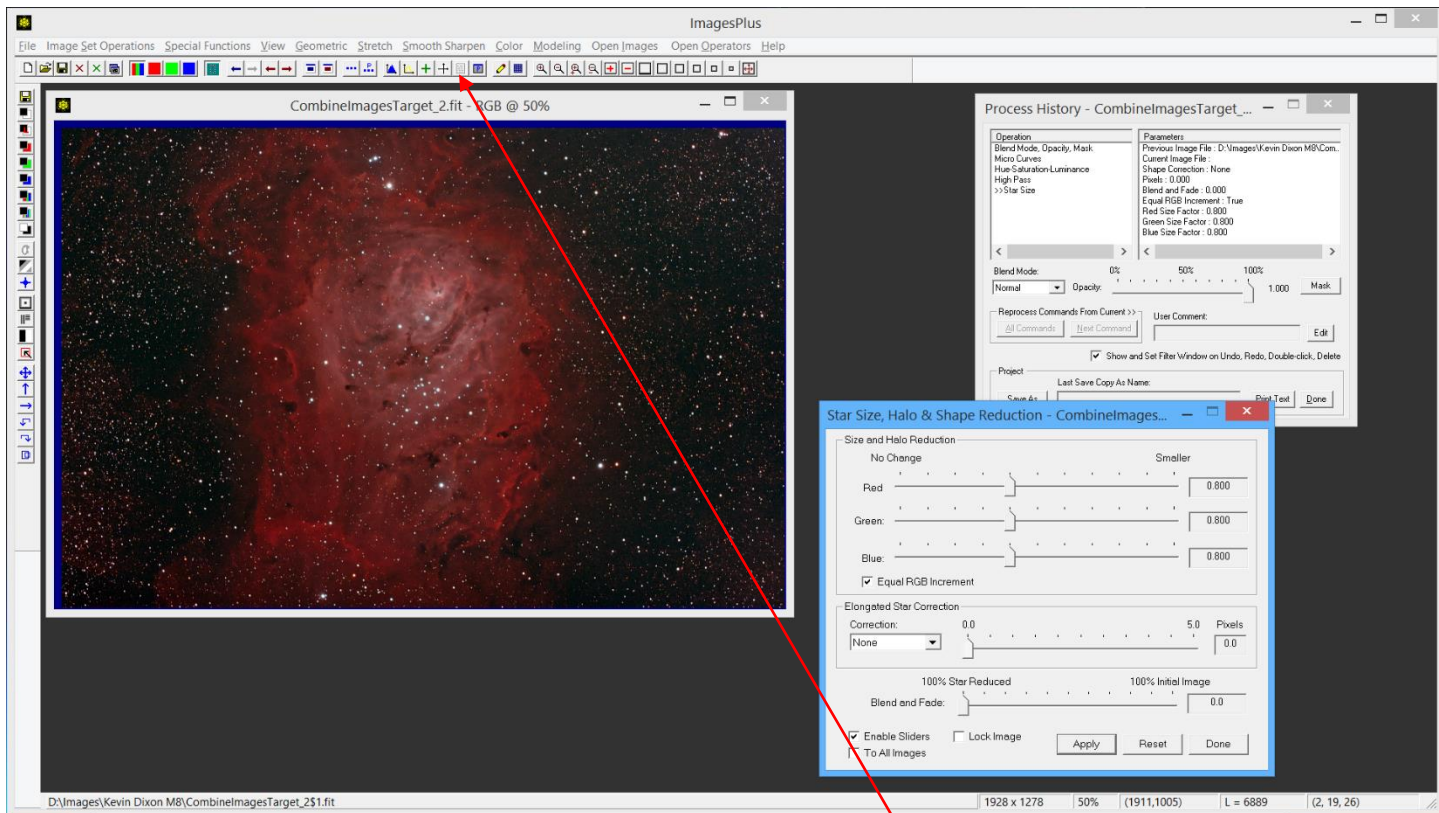
The gray scale mask can be smoothed use a Gaussian blur. Now save the mask as the current system mask in ImagesPlus using the Save As Then Copy Mask toolbar button. Close all tools and both star only images.



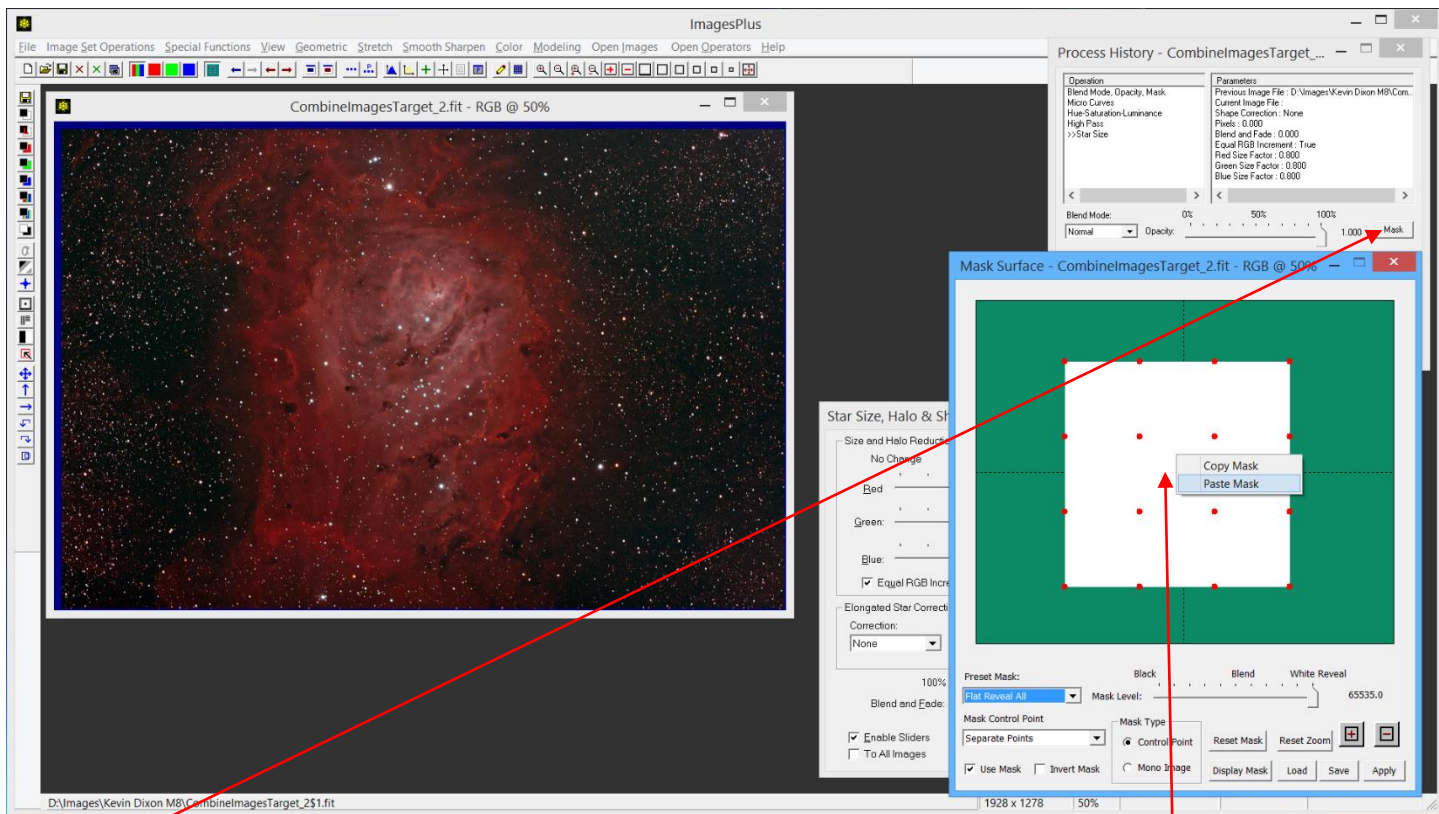
The Feature Mask operation needs to be removed to restore the M8 image so left-click on the Feature Mask entry in the Process History window then right-click on the selection and choose Delete.



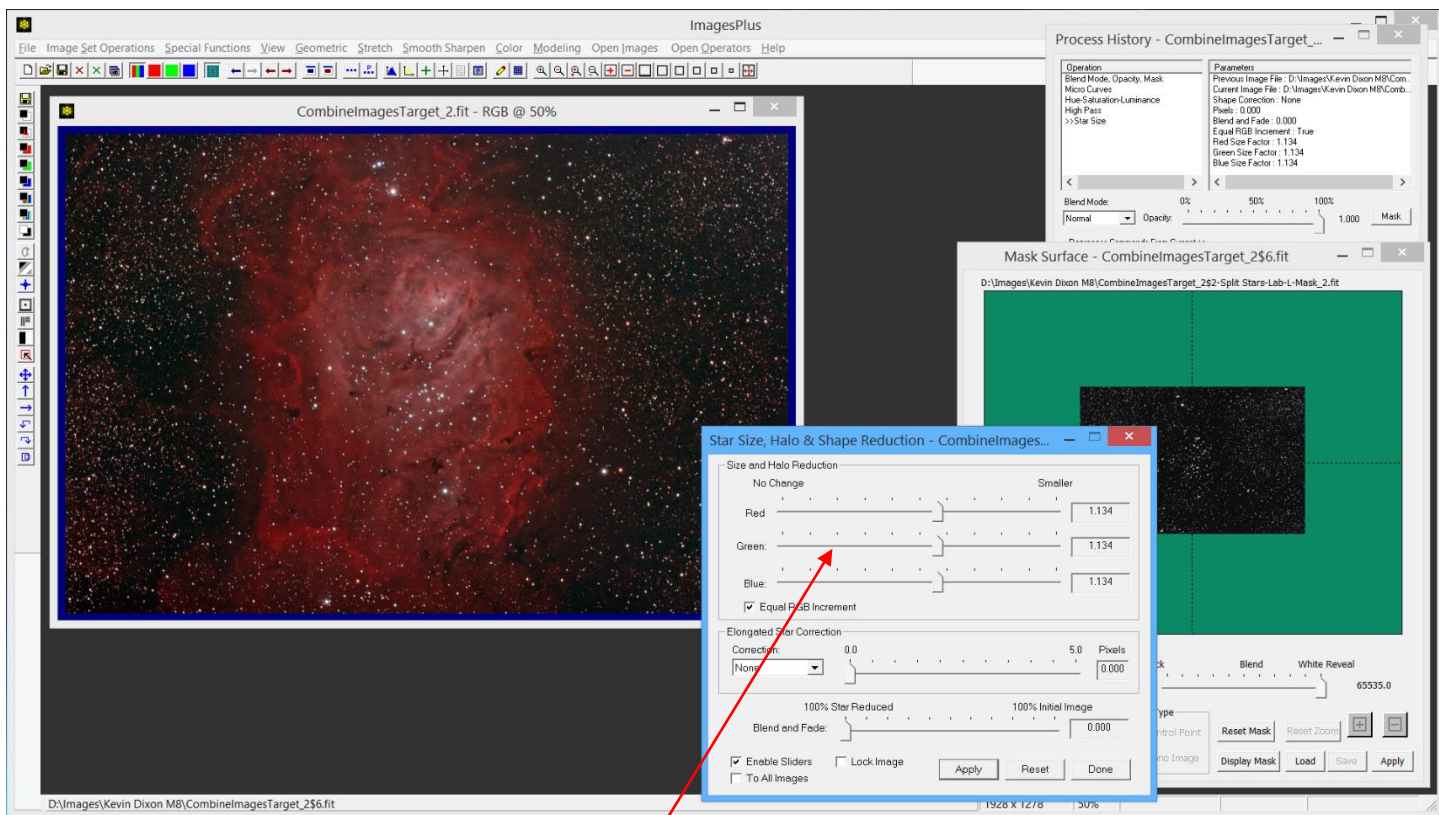
The high pass filter version of M8 is now restored. Next the star mask will be used with the star size reduction tool to reduce the size of stars in the high pass version of M8 shown above.



Step 12) Apply the Star Size tool to the high pass version of M8. Open then Process History window using its toolbar button if necessary.



Press the Mask button on the Process History window to display the Mask surface window. Right-click on the white square and select Paste to assign the star mask to the star size reduction tool.



Adjust the star size reduction as needed using the Red, Green, and Blue sliders.



Final M8 image with increased contrast, saturation, detail, and reduced star size.

The M8 data used in this tutorial was provided by Kevin Dixon. The calibrated, aligned, and stacked 16 bit FITS file provided by Kevin for use in this tutorial is available for download at

[Kevin Dixon's M8 Fits File](#)

Thank you Kevin for providing the M8 data.