Galaxy image processing

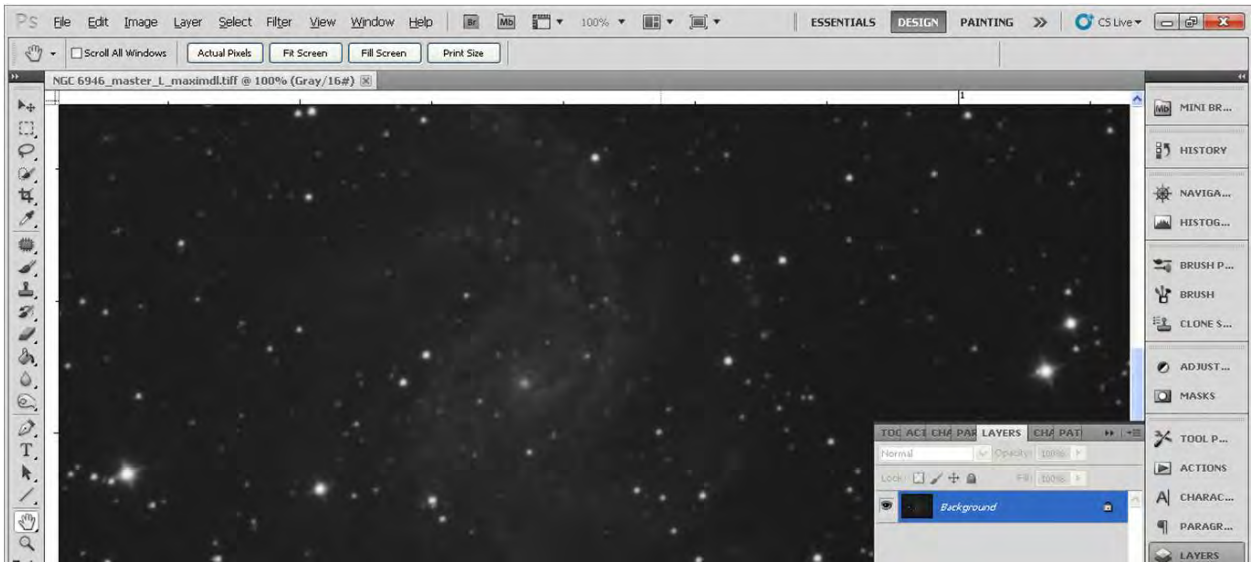
I have created this short tutorial to show you how I process my galaxy images.

Test image: NGC 6946 galaxy

Image technical details:

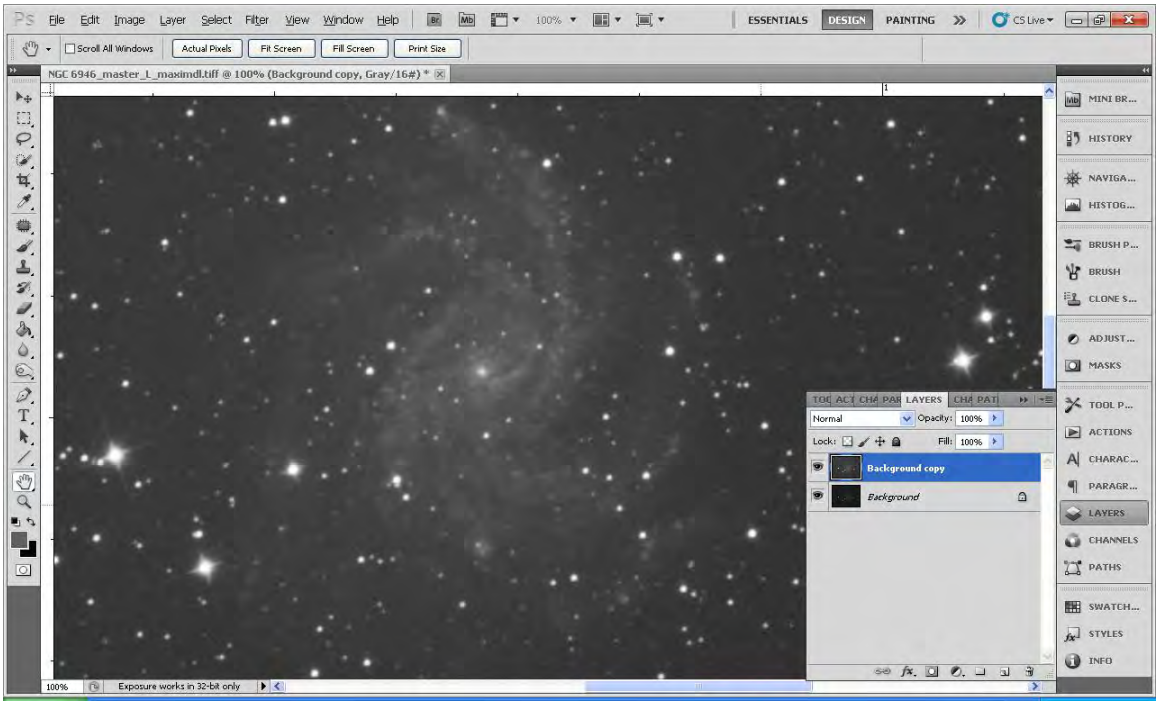
Telescope: Vixen VC200L @ f/9
Mount: HEQ5 synscan Pro
Guiding: Skywatcher 9x50 finderscope+DMK21AU04
Camera: SBIG ST2000XM
Filter Wheel: SBIG CFW9
Filters: Astronomik LRGB
CCD Temperature: 0 degrees Celsius
Location: Korinthos, Greece
Exposure: Lum : 60 min (30x2 min)
Binning: 1x1(L)
Calibration: Darks, Flats

This is the original image converted from fits to tiff format, after playing with curves/levels in Photoshop. Notice that I have not stretched the image too much in order to avoid additional noise in the background…

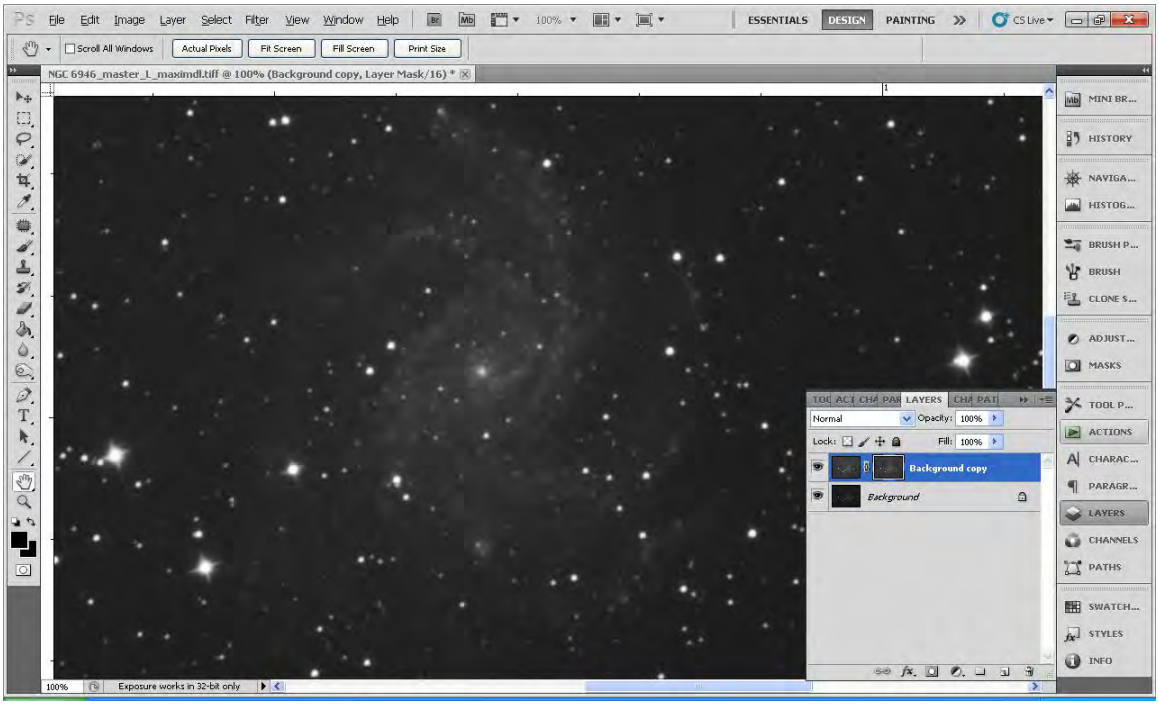


I follow these steps

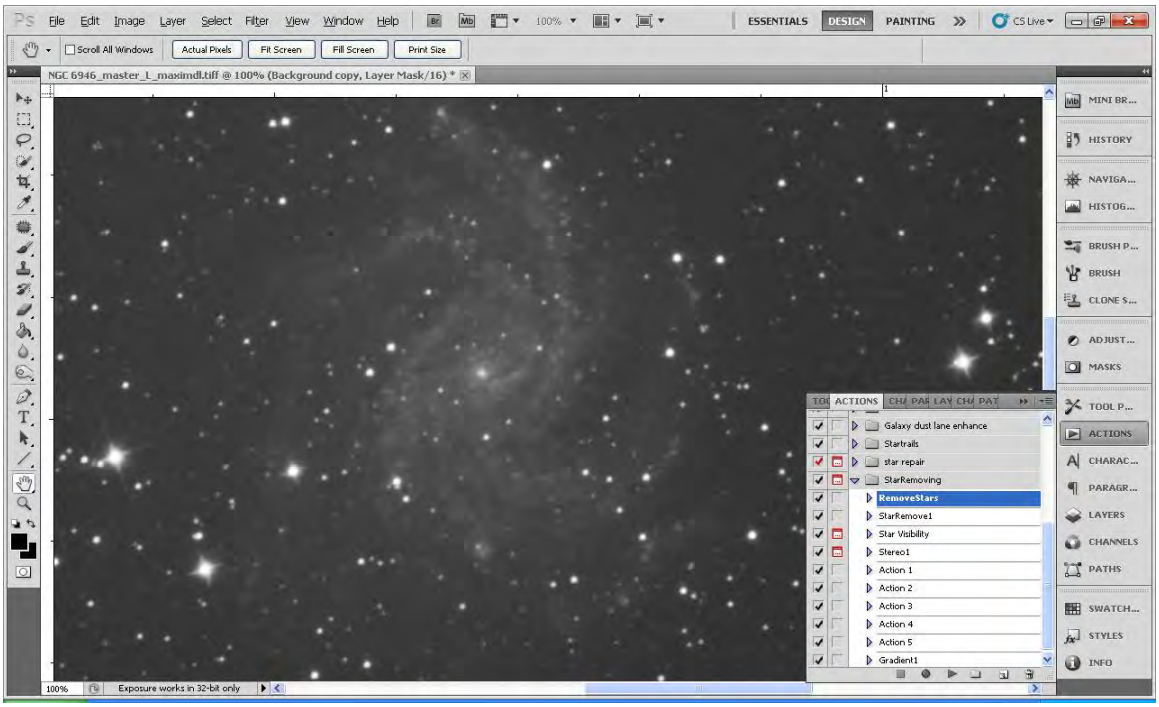
Step1: create a new layer and play with curves to increase contrast in this upper layer

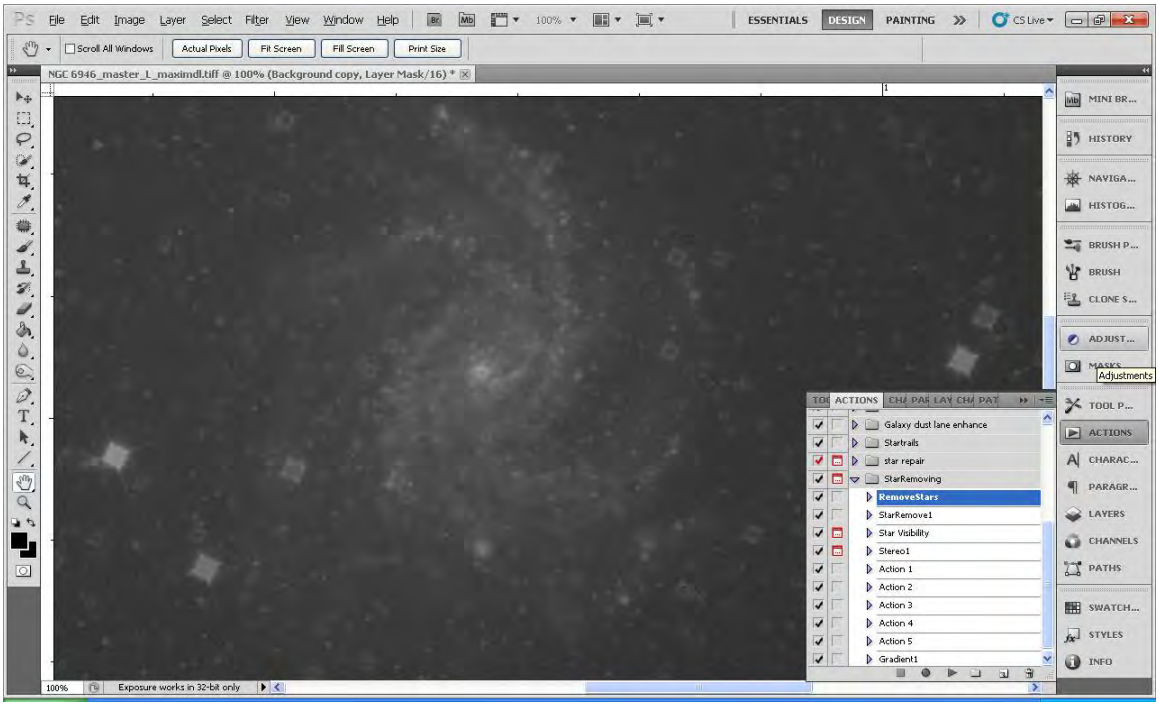


Step2: create a reveal all mask, and copy-paste the upper layer to the mask

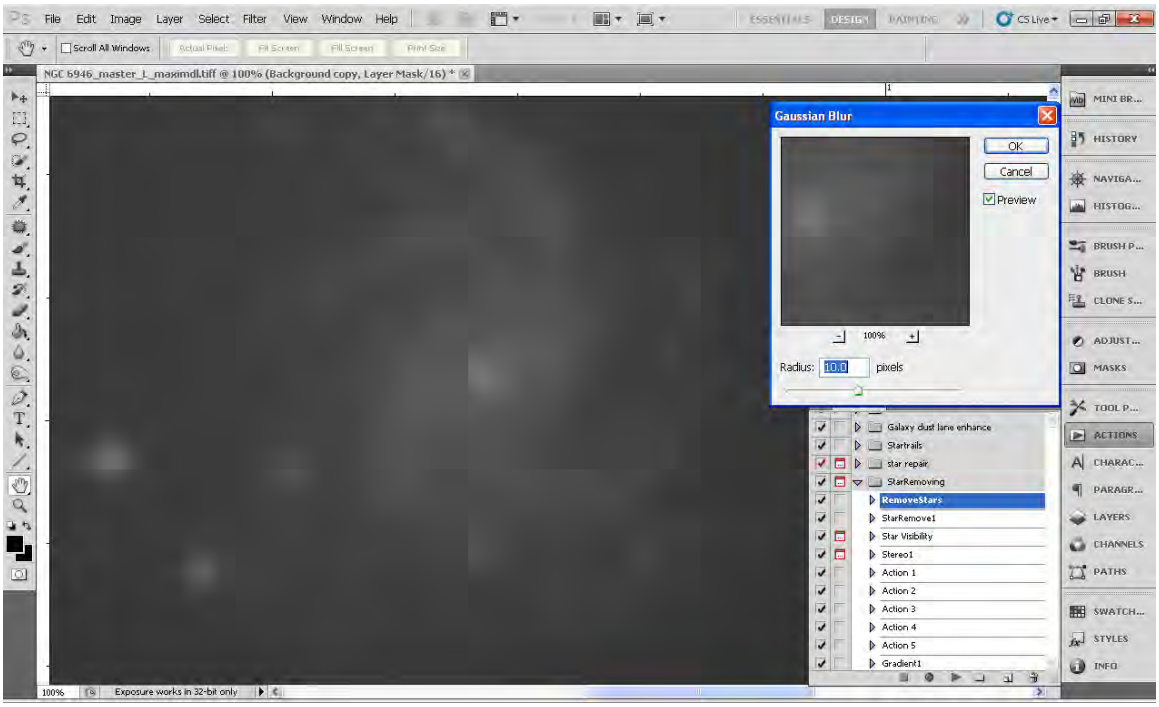


Step3: select the mask with Alt key, and remove all stars in the mask with "Removestars" action

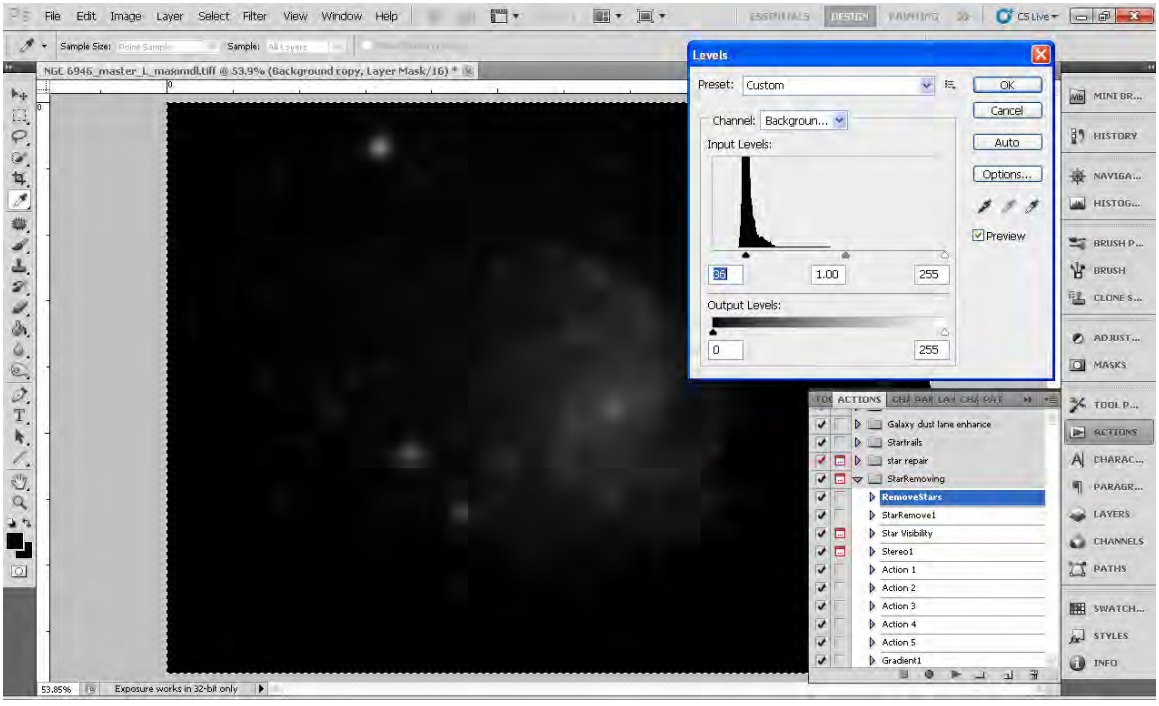




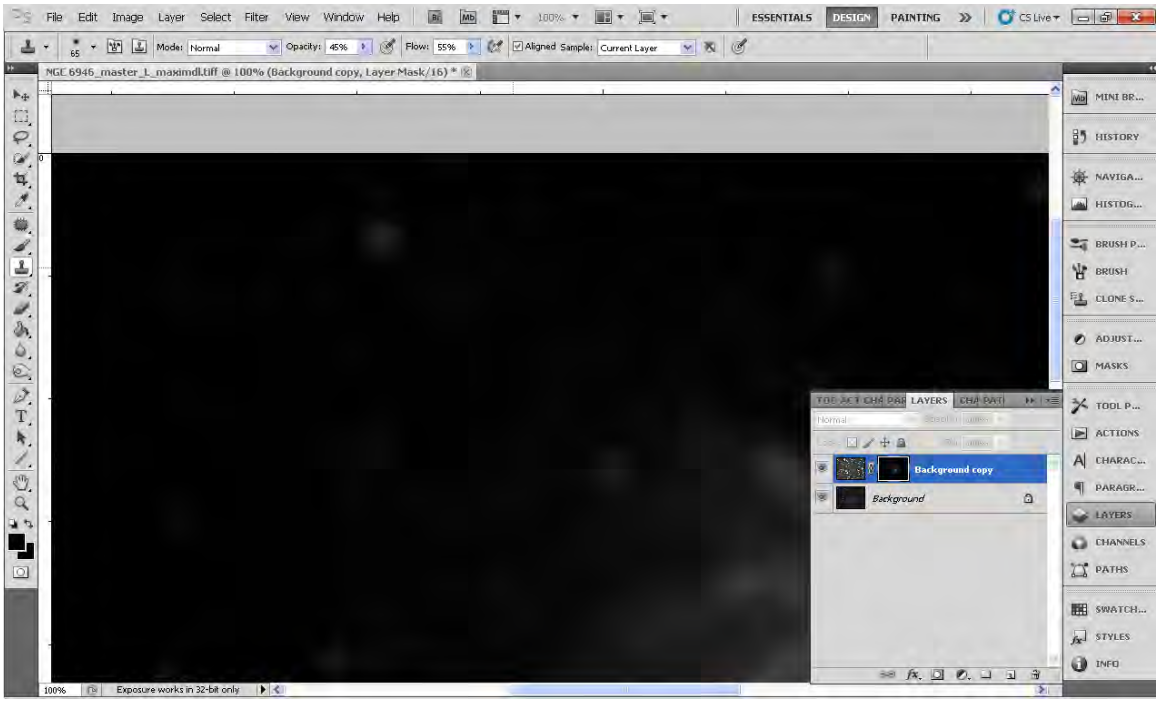
Step4: perform a Gaussian blur 7-10 on the mask in order to eliminate the stars…

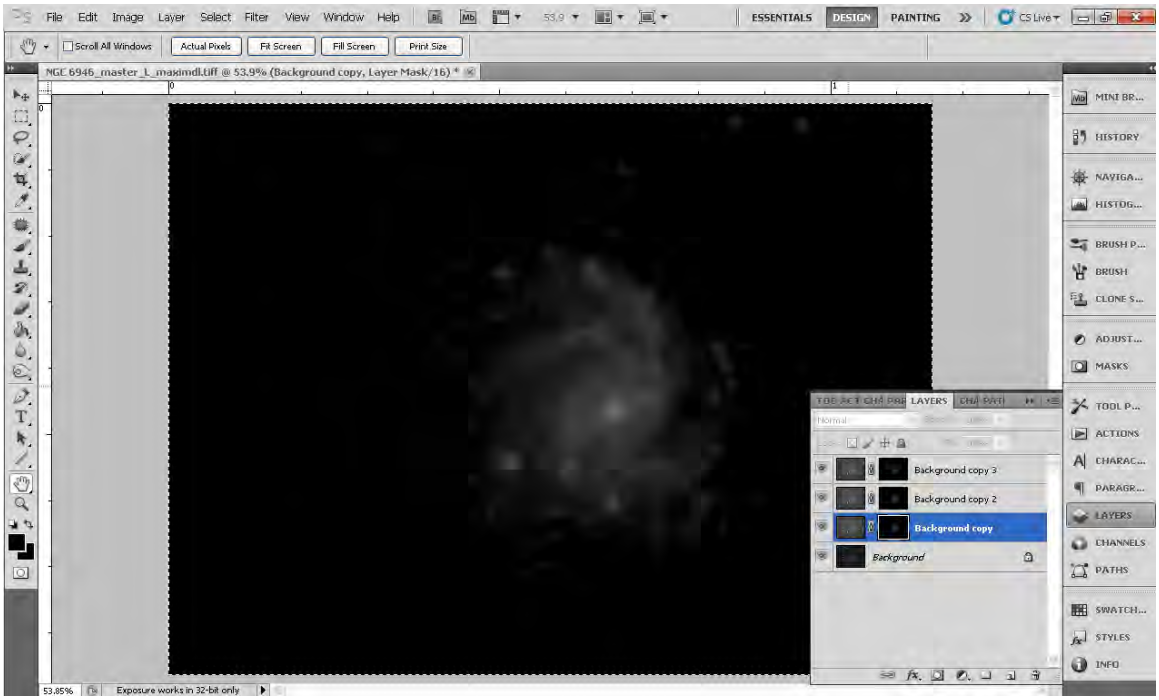


Step5: play with levels on the mask to see the galaxy

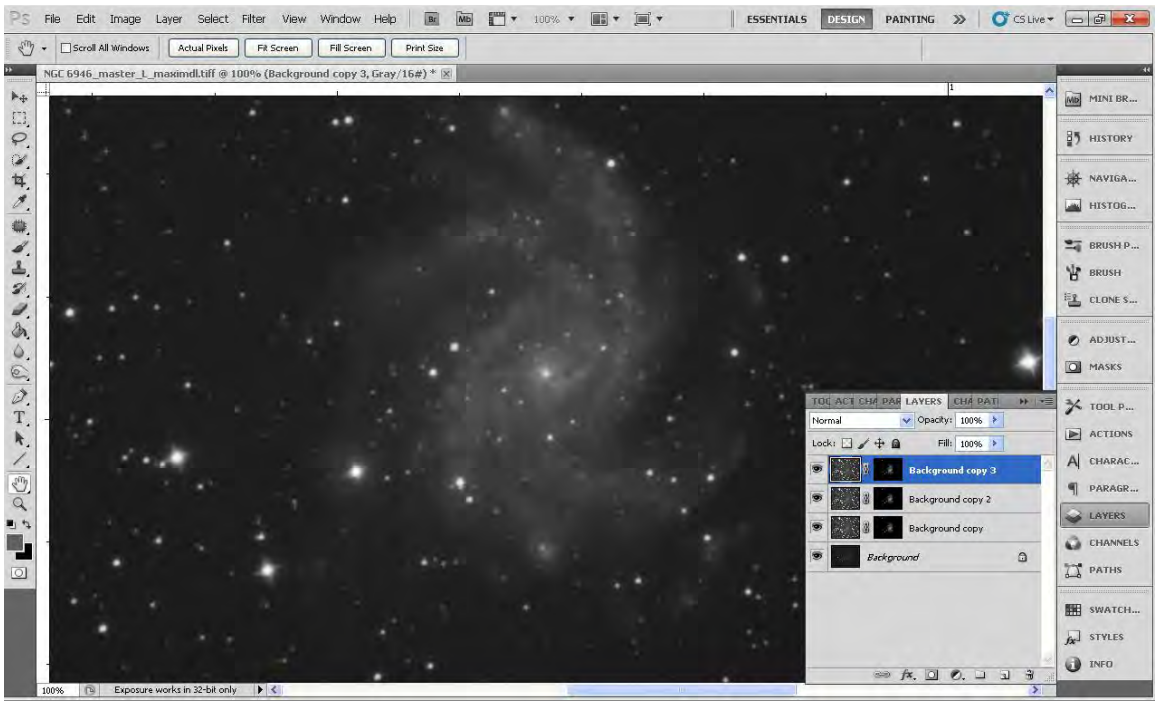


Step6: use clone stamp tool in the mask to delete any remaining stars so that only the galaxy is visible, everything else should be black...





Step7: use multiple copies of the upper layer+mask until you get the result to taste.



This is the final image

http://www.albireo.gr/astrogallery/galaxies/2014.07.06/NGC6946.html

Notes:

1. Star removal action for Photoshop you can download here http://astroanarchy.blogspot.fi/search/label/PS-actions

Thank you and clear skies

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