

To Affinity and beyond: A viable substitute for PS?



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About me.....



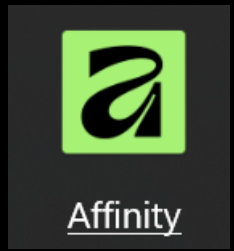
- Paul Harrison
- Retired Geophysicist & Professional Photographer
- Interested in astro, macro, landscapes and travel photography



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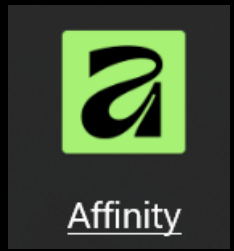
Affinity



- FREE
- Regular software updates
- Uses layers approach
- Will read PSD / PSB files
- Extensive astro photography support
- Does not have a Photo library / DAM



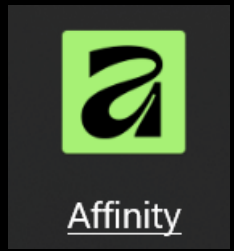
Affinity



- I started using it in May 2017 (Dec 2016)
- I used the #madeinaffinity on IG and my work was picked up by the company
- They have licensed several of my images
- I worked as a member of the ProPanel on testing V3 prior to the release in late 2025



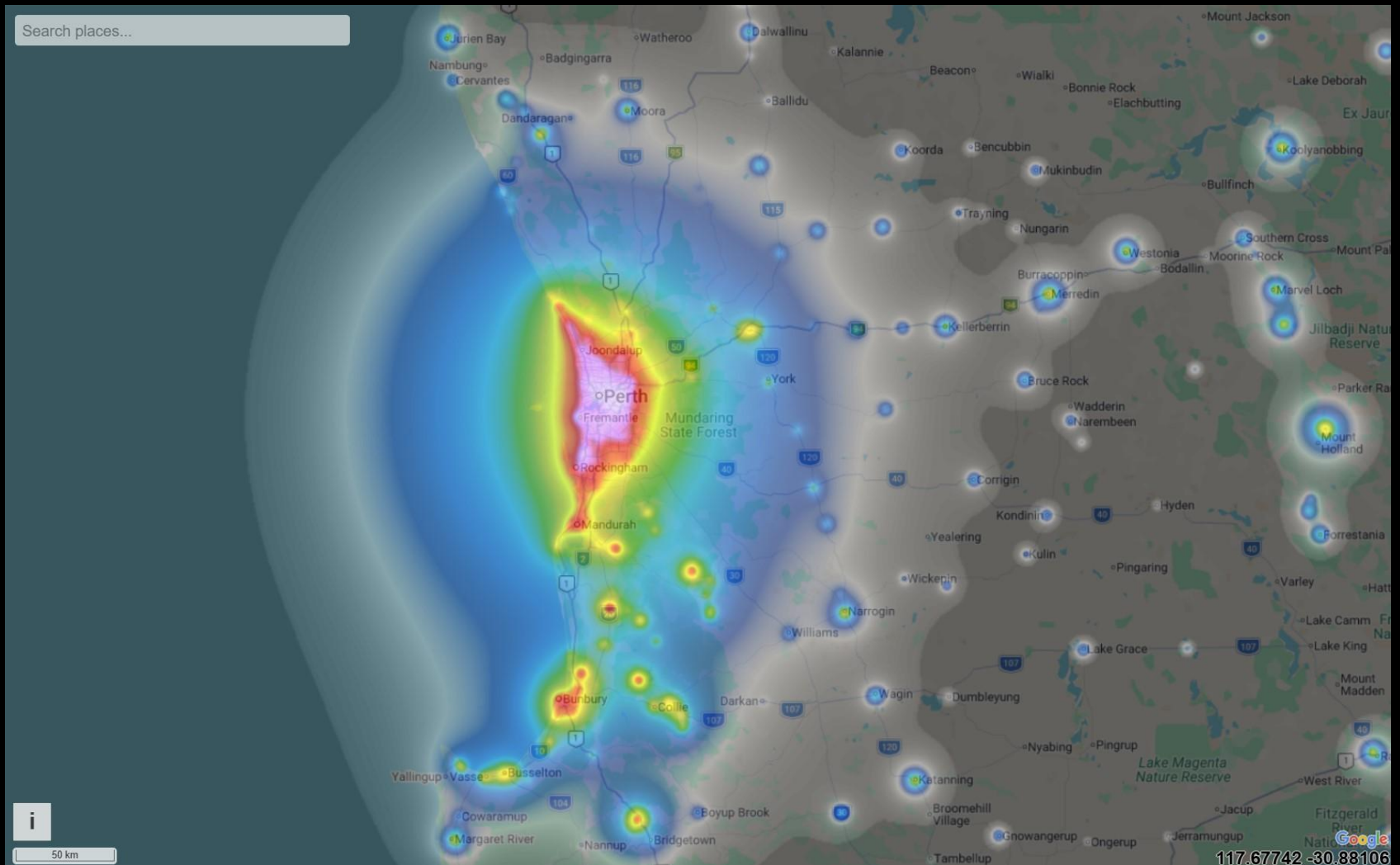
Affinity



- I probably use <30% of the existing functionality in Affinity
- Knowing how your processing software works will influence how you shoot
- Shoot with intent – have an idea what your final image is going to look like
- Understand the challenges of your chosen subject matter and have plans for dealing with those challenges



Lightpollutionmap.info



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Spinning through space



Low light

Earth's rotation

Maximise
signal/noise



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2015



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2019



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2026



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Planning

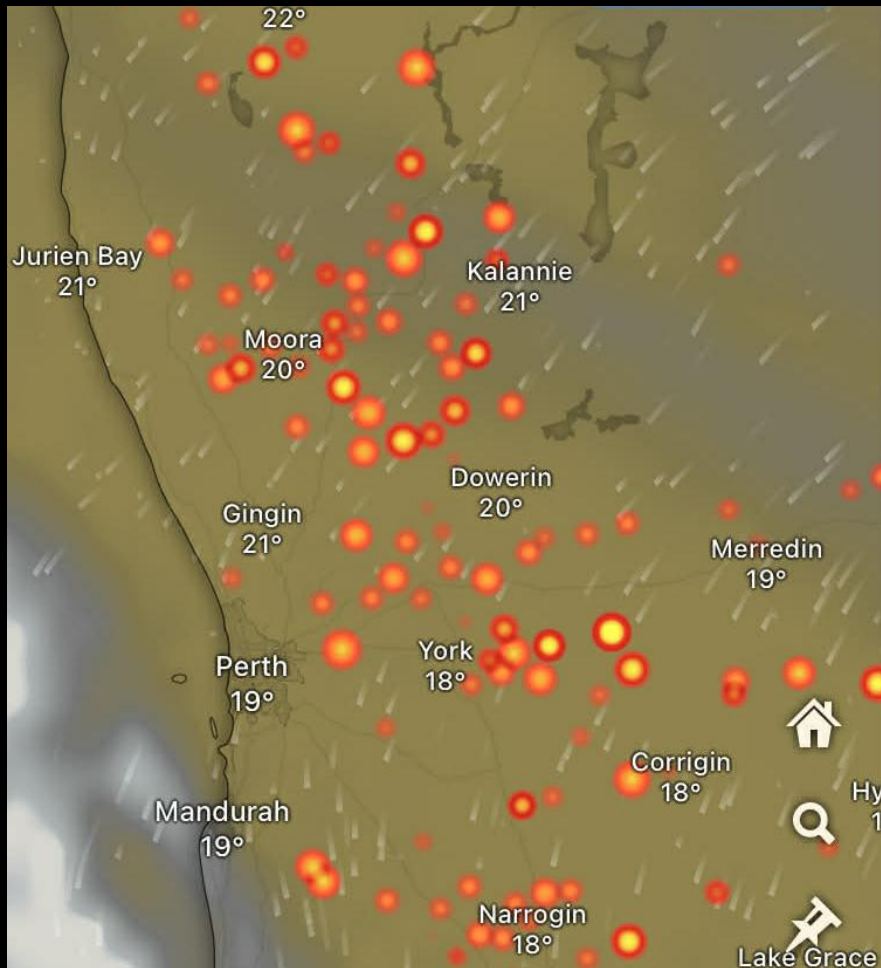
- Around New Moon or before / after moonset
- Clear skies – Windy App / Skippy Sky
- Astro planning spreadsheet

Date	Day	Moon Set	Moon Rise	Moon luminosity	core start	start elevation	core end	end elevation	Details
21/06/2026	Sunday		11-49	 37.1%	18-48	23.40	05-49	18.00	
22/06/2026	Monday	00-06	12-16	 47.6%	18-48	24.20	05-50	17.20	
23/06/2026	Tuesday	01-05	12-43	 57.8%	18-49	25.10	05-50	16.40	
24/06/2026	Wednesday	02-02	13-12	 67.4%	18-49	25.90	05-50	15.60	
25/06/2026	Thursday	03-00	13-43	 76.2%	18-49	26.80	05-50	14.80	
26/06/2026	Friday	03-58	14-17	 83.8%	18-49	27.60	05-50	14.00	
27/06/2026	Saturday	04-56	14-57	 90.1%	18-50	28.50	05-50	13.30	
28/06/2026	Sunday	05-53	15-43	 95.0%	18-50	29.30	05-51	12.50	
29/06/2026	Monday	06-46	16-34	 98.2%	18-50	30.20	05-51	11.70	
30/06/2026	Tuesday	07-35	17-30	 99.8%	18-51	31.10	05-51	11.00	
1/07/2026	Wednesday	08-18	18-27	 99.5%	18-51	31.90	05-51	10.20	
2/07/2026	Thursday	08-56	19-27	 97.4%	18-51	32.80	05-51	9.50	
3/07/2026	Friday	09-30	20-25	 93.5%	18-52	33.70	05-51	8.80	Western Australia School Term ends
4/07/2026	Saturday	09-59	21-24	 87.9%	18-52	34.60	05-51	8.00	
5/07/2026	Sunday	10-27	22-22	 80.7%	18-52	35.50	05-51	7.30	
6/07/2026	Monday	10-54	23-22	 72.1%	18-53	36.40	05-51	6.60	
7/07/2026	Tuesday	11-22		 62.3%	18-53	37.30	05-51	5.90	
8/07/2026	Wednesday	11-52	00-22	 51.7%	18-54	38.20	05-51	5.20	
9/07/2026	Thursday	12-26	01-28	 40.7%	18-54	39.10	05-51	4.60	
10/07/2026	Friday	13-06	02-36	 29.9%	18-55	40.00	05-50	3.90	
11/07/2026	Saturday	13-55	03-48	 19.8%	18-55	40.90	05-50	3.20	
12/07/2026	Sunday	14-54	05-01	 11.2%	18-55	41.80	05-50	2.60	
13/07/2026	Monday	16-02	06-09	 4.7%	18-56	42.70	05-50	2.00	
14/07/2026	Tuesday	17-17	07-10	 0.9%	18-56	43.60	05-50	1.40	



Shooting Considerations

- Windy App – “show active fires”

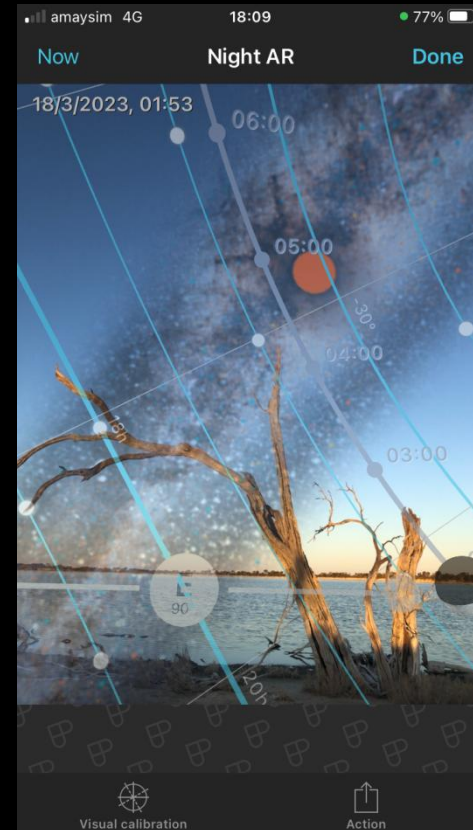
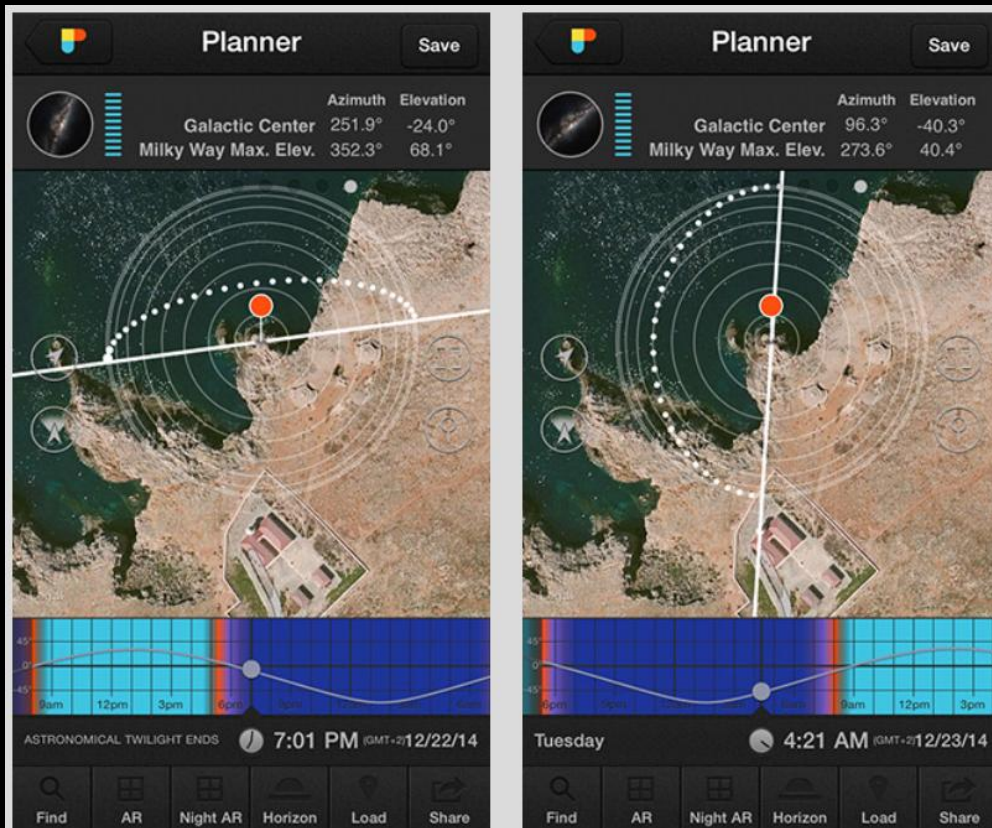


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PhotoPills (US\$ 10.99)

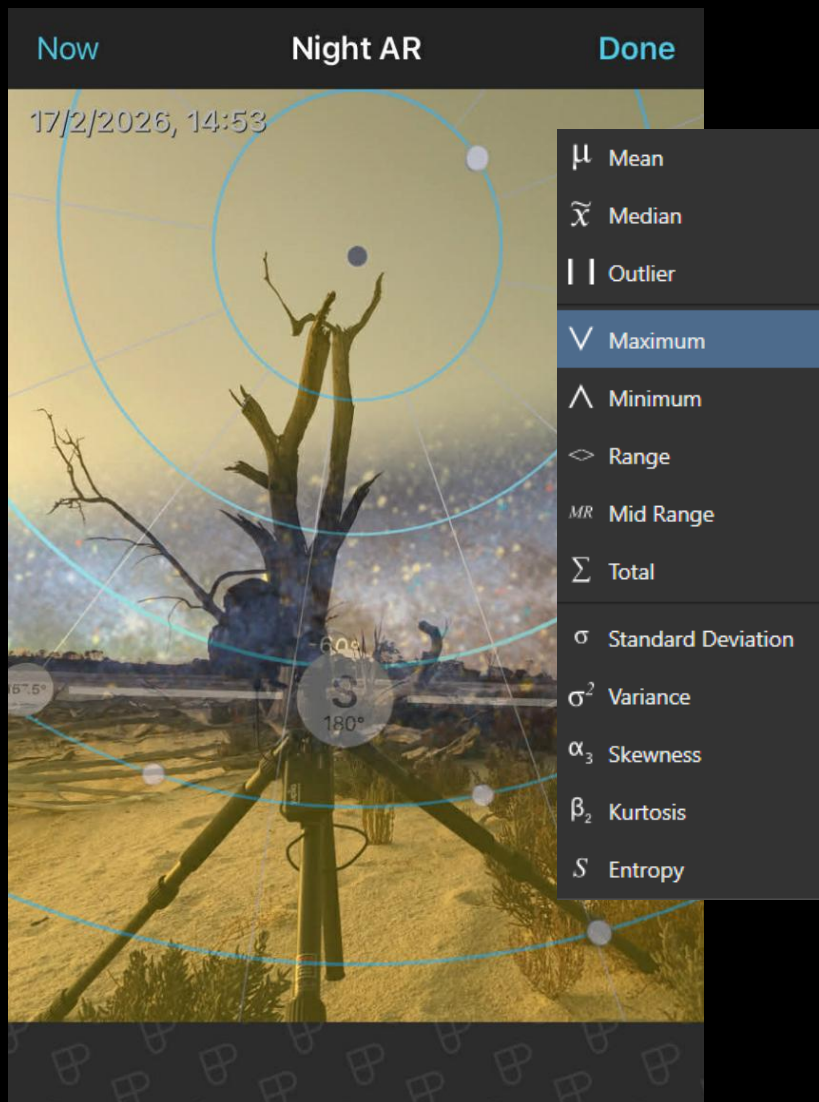
- “Swiss Army knife” for photography
- Allows planning for astrophotography



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Plan the shot



14mm lens at f/2, 20sec, ISO 800, 1013 stacked images



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Plan the shot – be productive with your time



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Scout the location

With / without
person



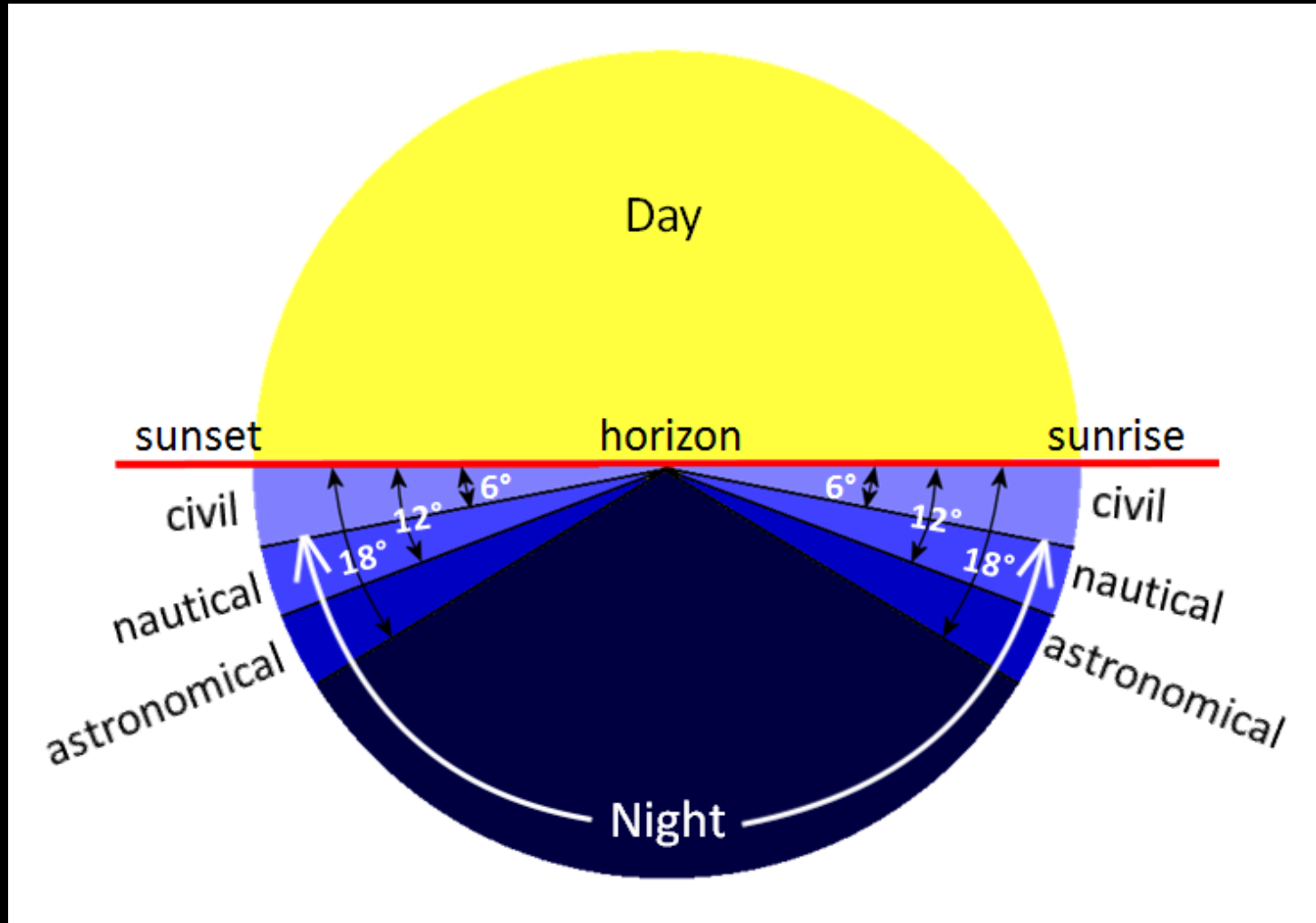
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Shooting Considerations

- Foreground shooting during twilight





13 panel horizontal panorama shot – leave space
24mm lens at f/3.2, 13sec, ISO 1000
Shot at 1900 after sunset at 1738 – during Nautical Twilight



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Sky 8 panel horizontal panorama; 5 shots per panel stacked
24mm lens at f/2, 13sec, ISO 2000



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Vertical pano of 3
frames

Foreground is focus
stacked

Sky 320 images
stacked

14mm lens at f/2.8,
20sec, ISO 800

Foreground shot
during blue hour



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7 stacked images +
1 dark frame

24mm lens at f/2,
15sec, ISO 1600

Foreground lighting
with Nanlite Pavo
6C II @3900K -
placed far away
and flagged



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Vertical pano of 3
panels

5 stacked images +
1 dark frame in
each panel

24mm lens at f/2,
15sec, ISO 1600

Foreground lighting
and interior light
with Nanlite Pavo
6C II



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Basic Editing

- **Boost exposure**
- **Apply a colour defringe to stars**
- **Adjust Levels, White Balance, Contrast and Saturation to taste**
- **Run some form(s) of denoise**





Flash used to lightpaint
the foreground (0.5
CTO gel)

15mm lens at f/2.8
20 secs
ISO 4000
Single Image



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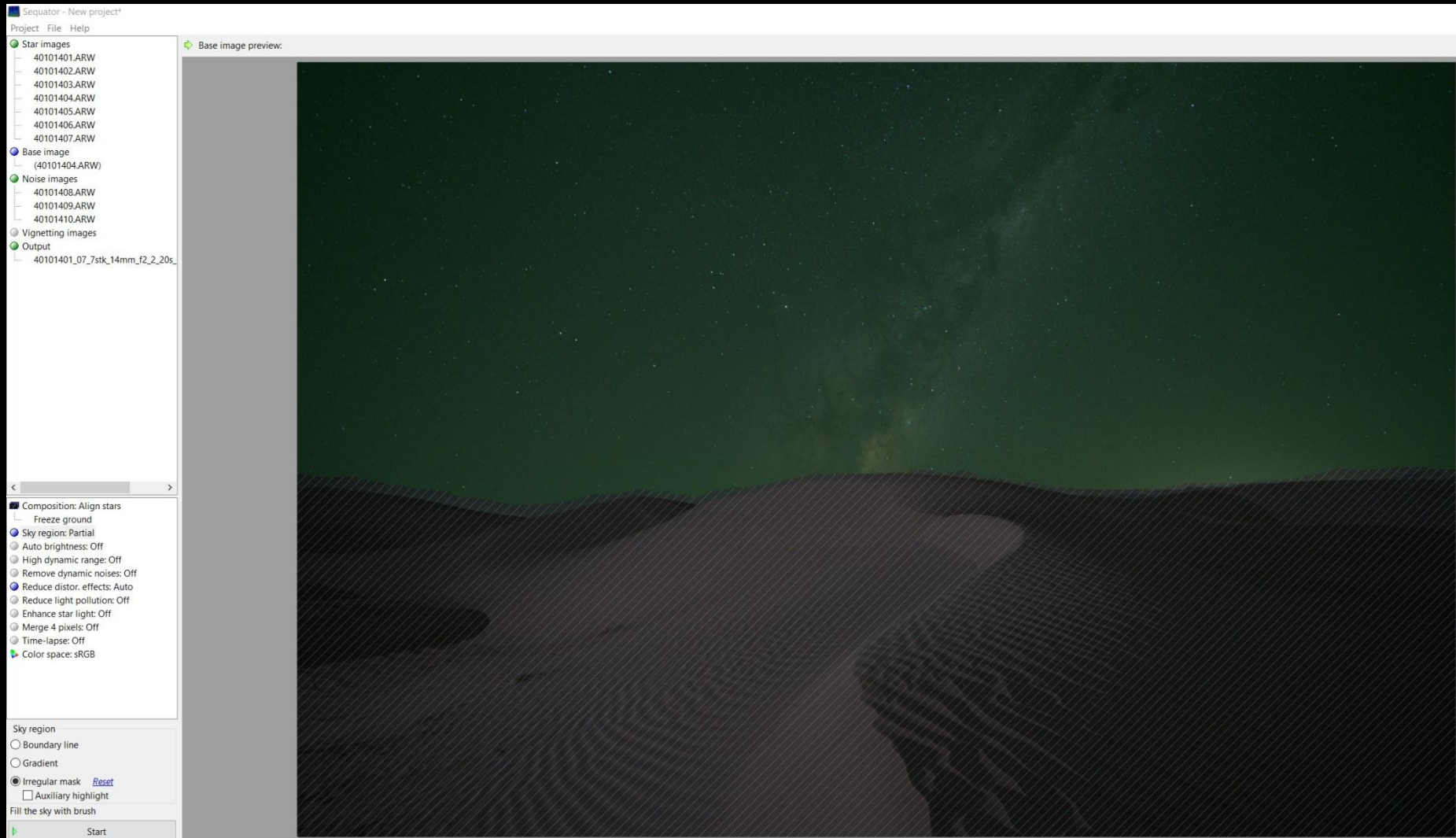
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Editing

- Start with RAW files
- Stack images using Sequator (Free) / Starry Sky Stacker (\$25)
- Stacking increases Signal / Noise
- Removes hot pixels & satellites



Stacking – increases S/N



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Stacking – Pre Processing

Single shot



Stack of 10 shots



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Stacking – Post Processing

Single shot



Stack of 10 shots



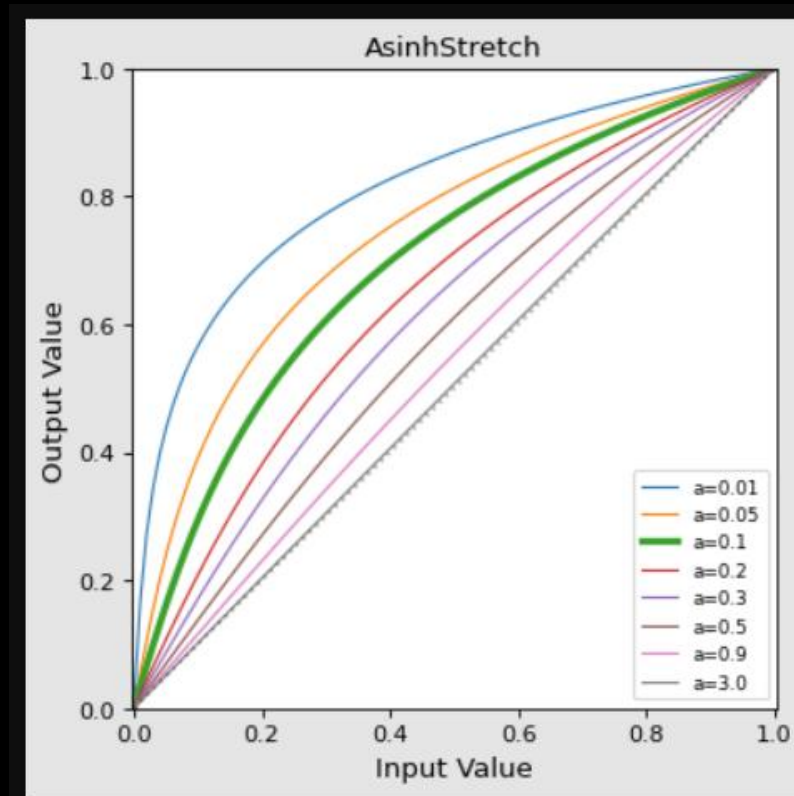
StarXterminator – RC Astro US\$60



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Tone Stretching



The Arcsinh stretch is a non-linear image processing technique to brighten faint details in linear data while preserving the original colour ratios.

Neutral Tone Stretch
{Steps: 15}

Normalised Tone Stretch
{Steps: 11}

Logarithmic Tone Stretch
{Steps: 11}

Colour Preserving Tone Stretch
{Steps: 11}

Colour Preserving Tone Stretch (+)
{Steps: 17}

(Live) Basic Tone Stretch
{Steps: 3}

(Live) Arcsinh Tone Stretch
{Steps: 3}

(Live) Logarithmic Tone Stretch
{Steps: 3}

(Live) Structural Tone Stretch
{Steps: 3}

(Live) Colour Preserving Tone Stretch
{Steps: 3}

Mono Stretch (RGB)
{Steps: 31}

Mono Log Stretch (RGB)
{Steps: 34}

Mono Stretch (L-RGB)
{Steps: 41}

Mono Log Stretch (L-RGB)
{Steps: 45}

Mono Stretch (SHO)
{Steps: 31}

Mono Log Stretch (SHO)
{Steps: 34}

Stretch Selected Layer
{Steps: 8}

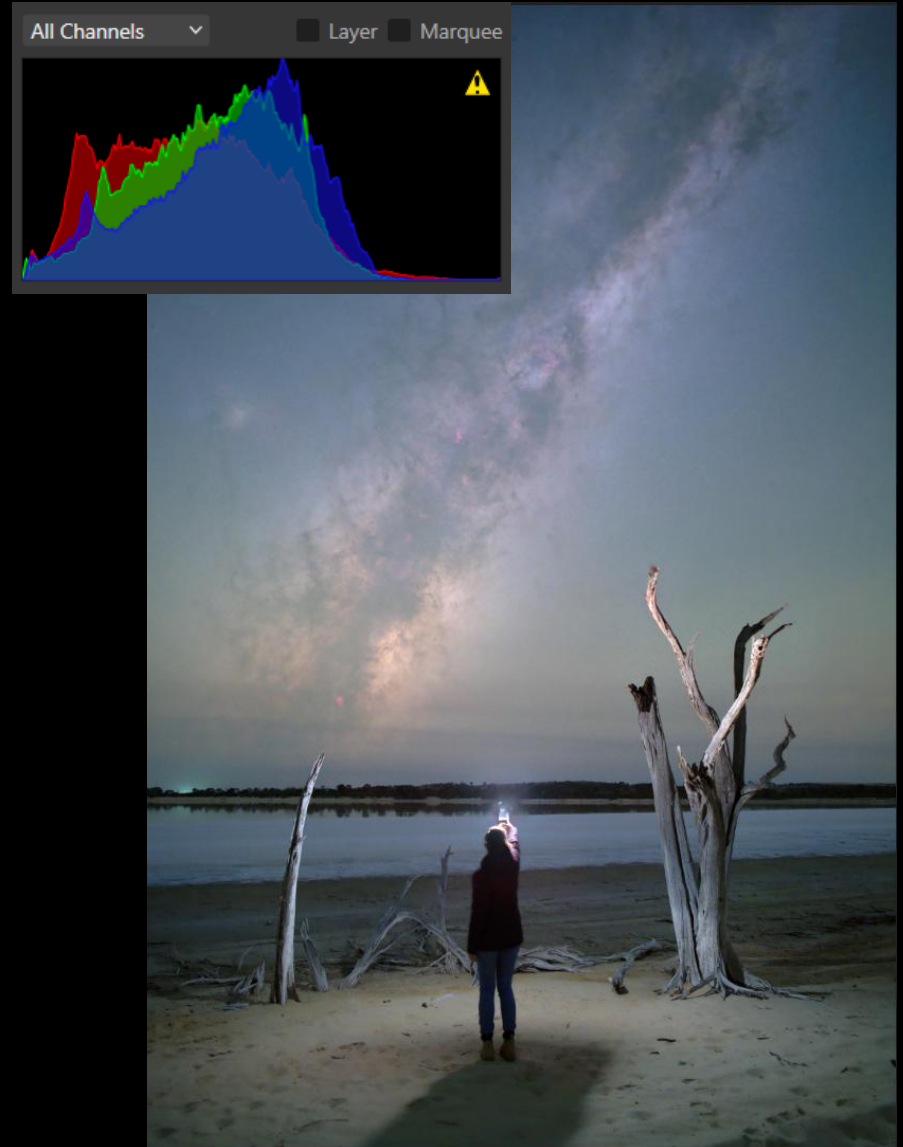
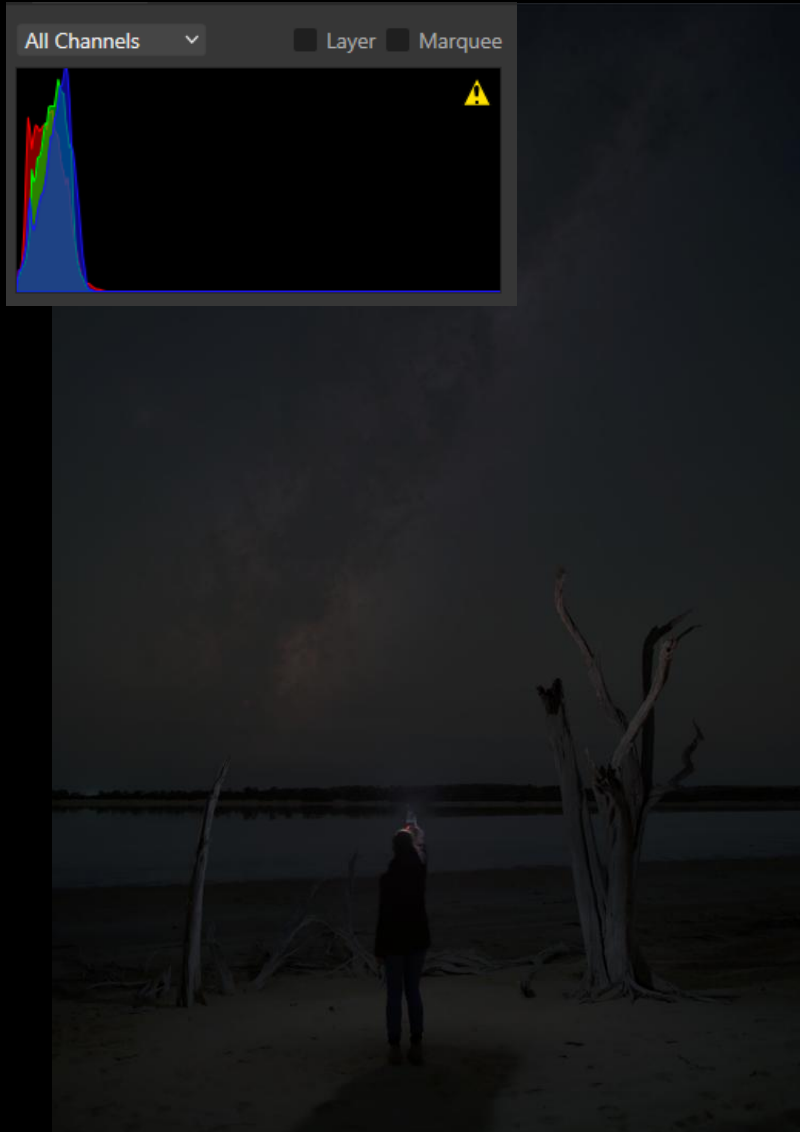
Log Stretch Selected Layer
{Steps: 9}



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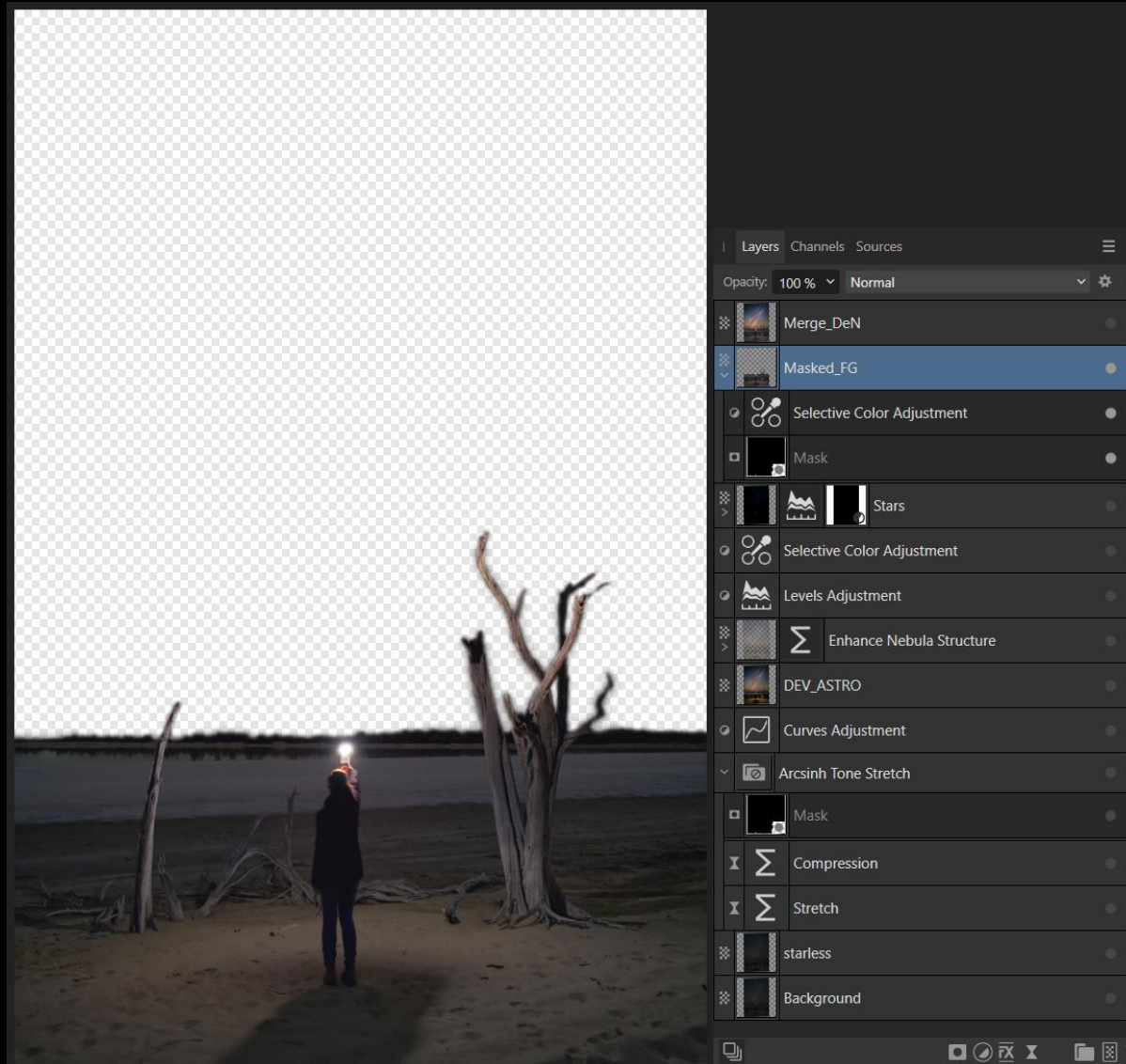
Tone Stretching



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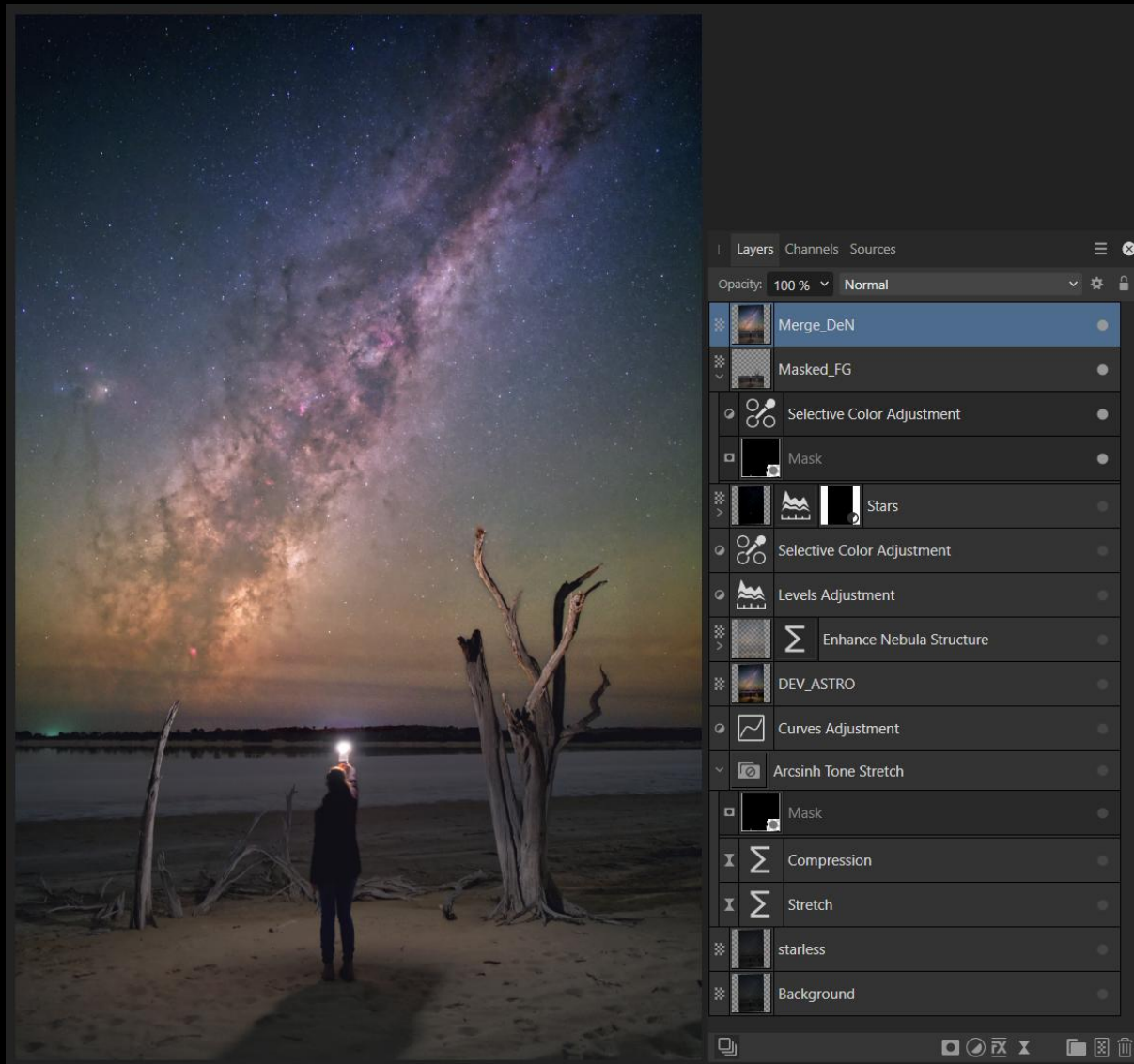
Foreground masking



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Final Merge



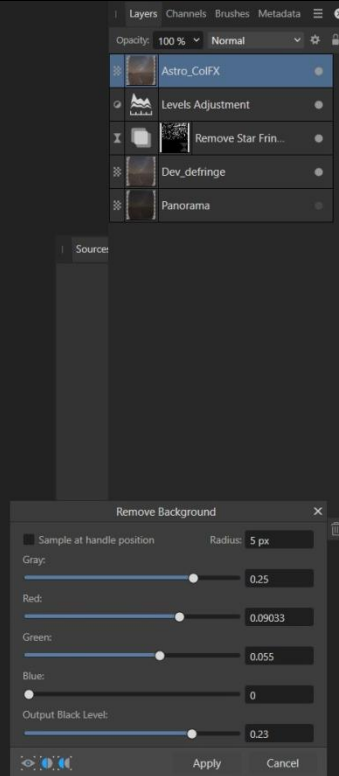
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Astro Background filter

Before

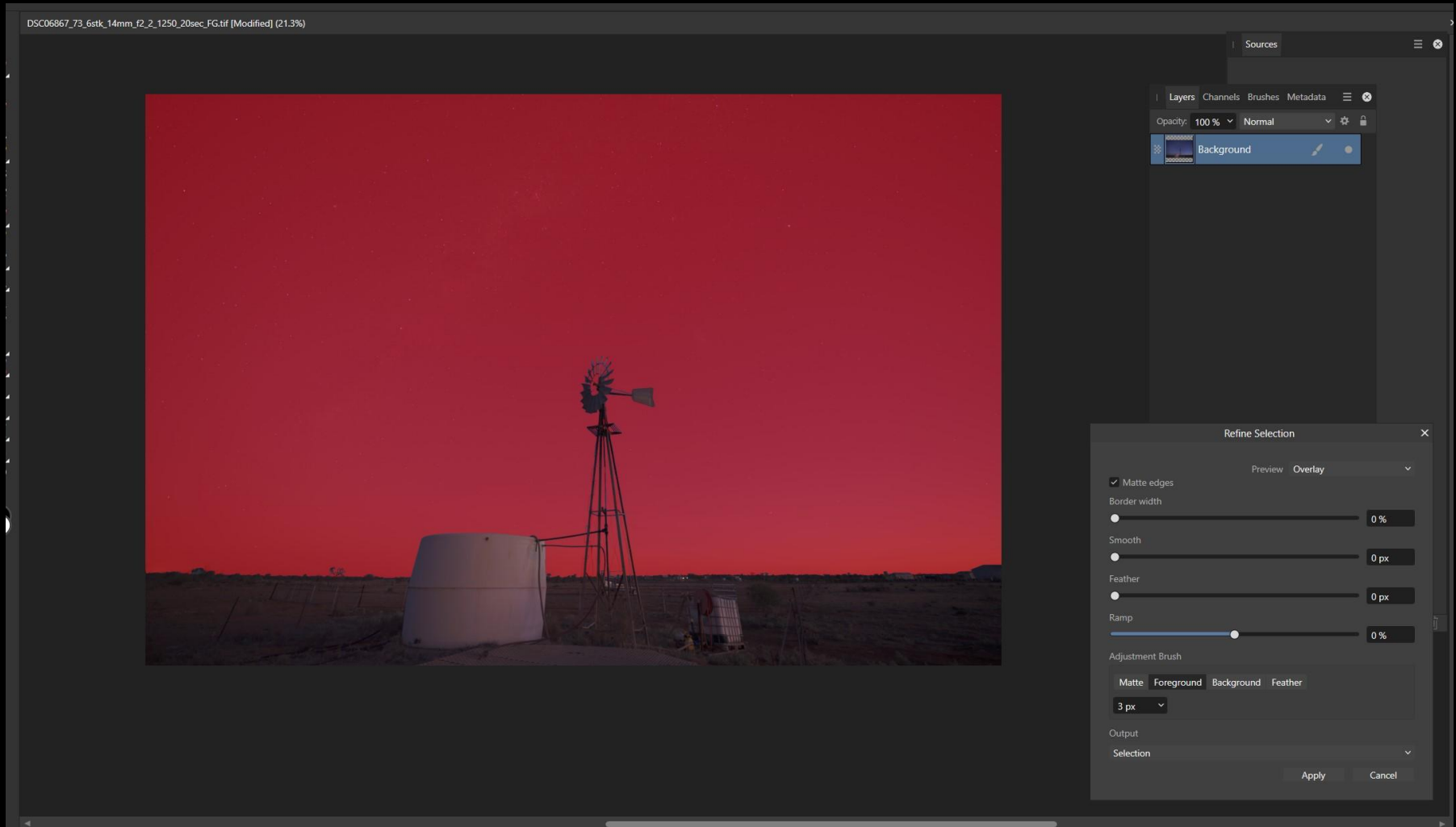
After



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Foreground masking



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Foreground masking



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Astro-modified cameras

- **Hydrogen-alpha (Ha-mod)**
 - Most common
 - Camera can still be used for “normal” photography with a custom WB
 - Clip in or screw on Ha narrowband filters allows just Ha light to be collected
- **Full spectrum mod**
 - Dedicated for astrophotography



Astro-modified cameras

The visible spectrum

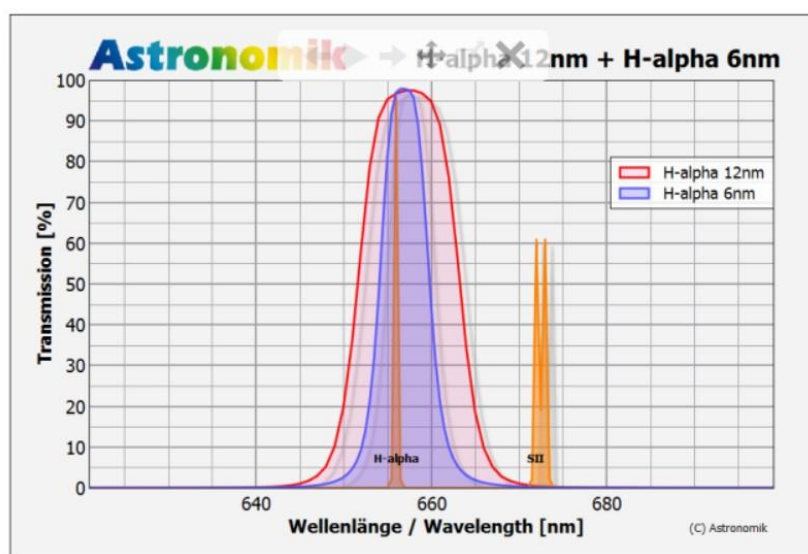
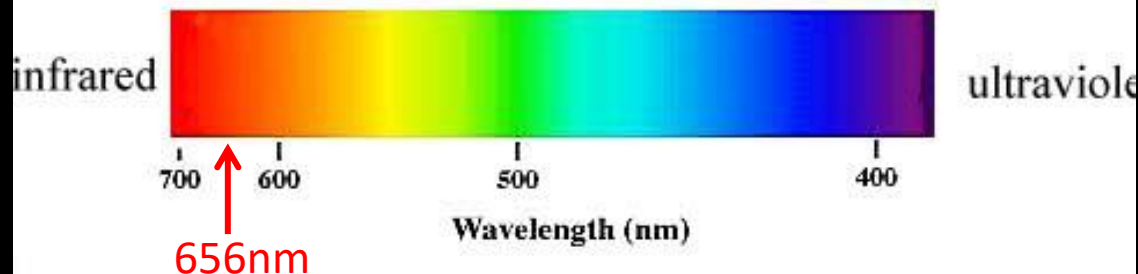
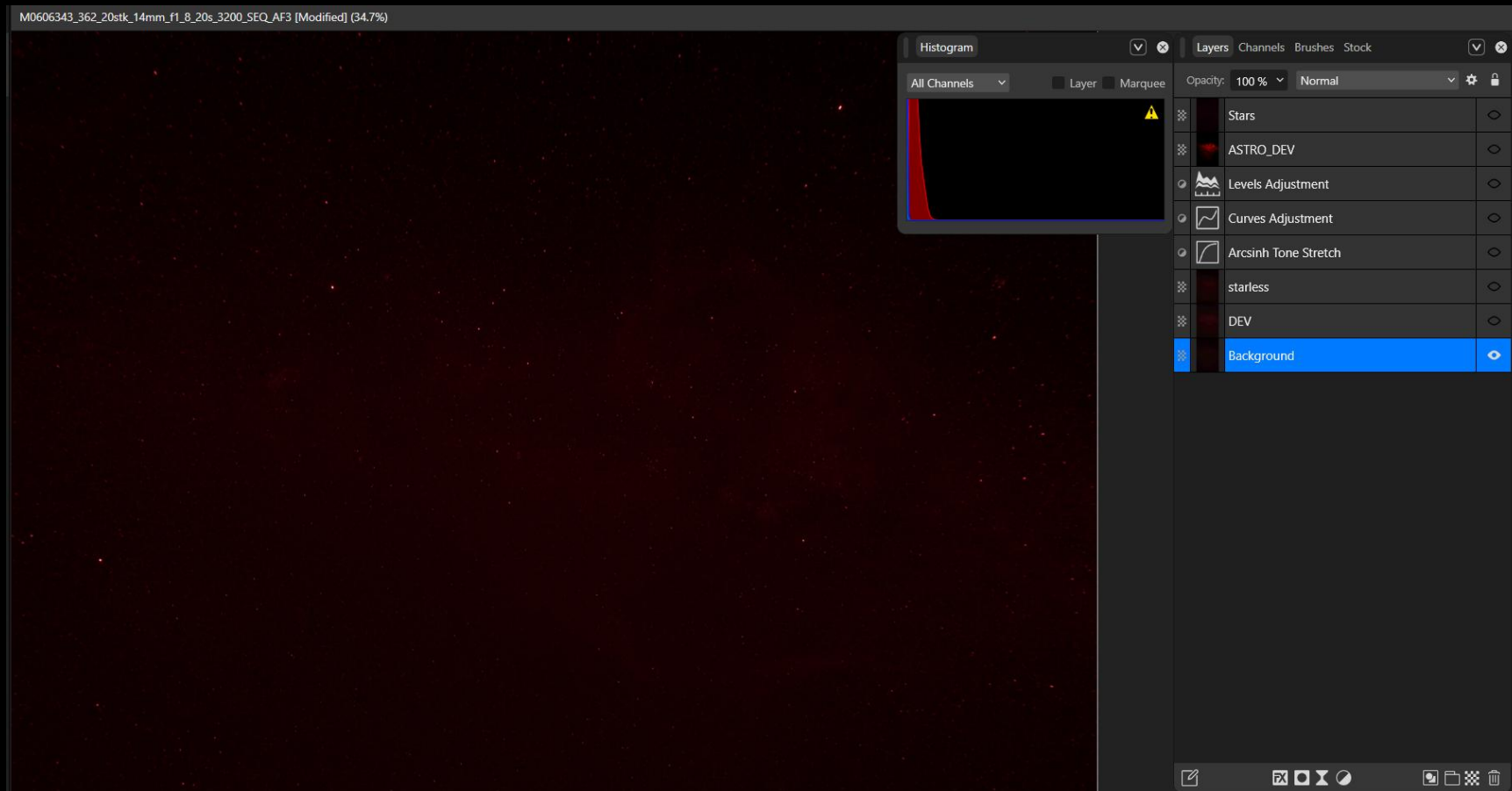


Image 1 of 1
Astronomik H-alpha-CCD filter with 6nm and 12nm FWHM



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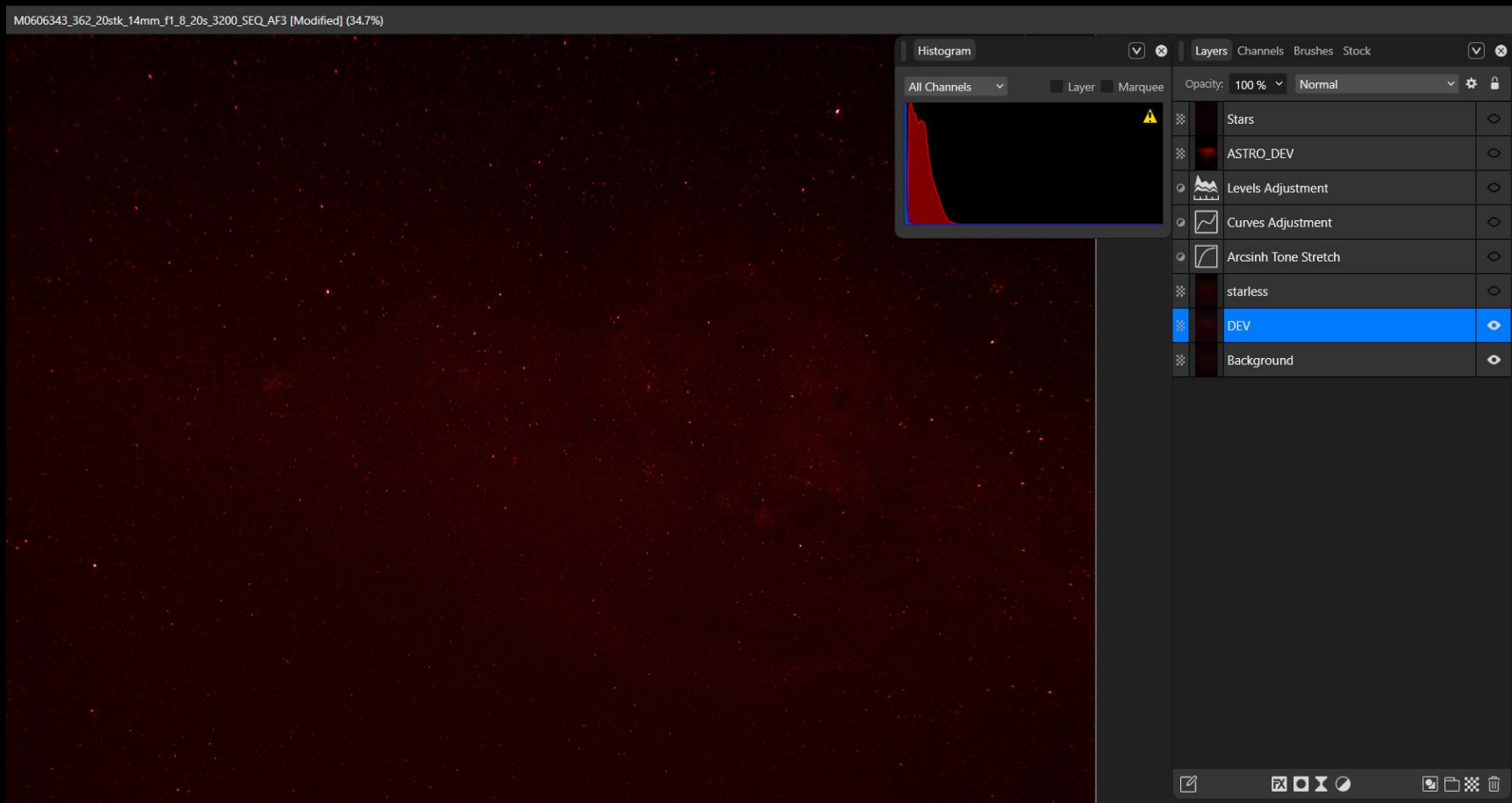


14mm f/1.8 20 sec ISO 3200 12nm Ha filter Stack of 20 images



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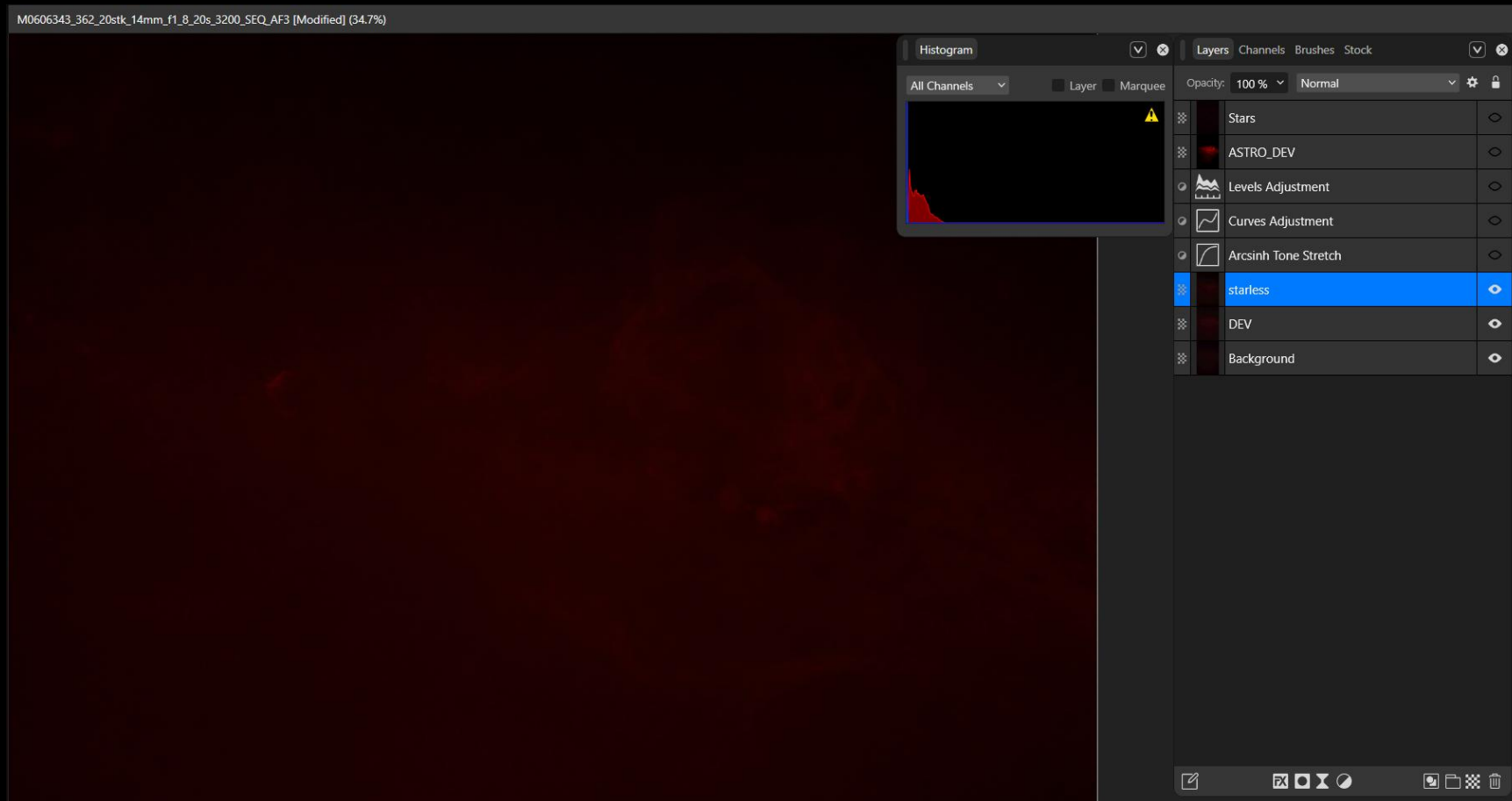


14mm f/1.8 20 sec ISO 3200 12nm Ha filter Stack of 20 images



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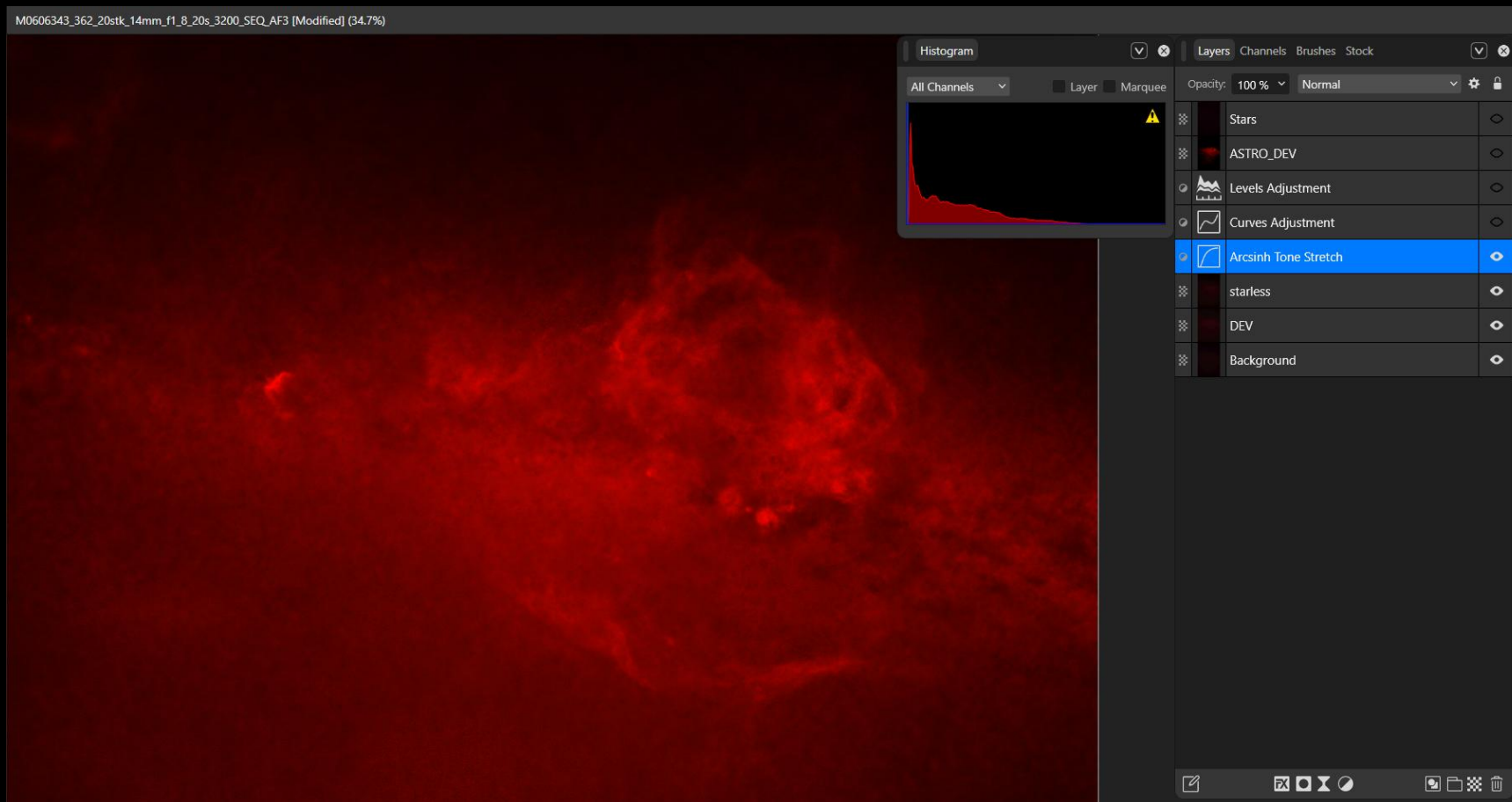


14mm f/1.8 20 sec ISO 3200 12nm Ha filter Stack of 20 images



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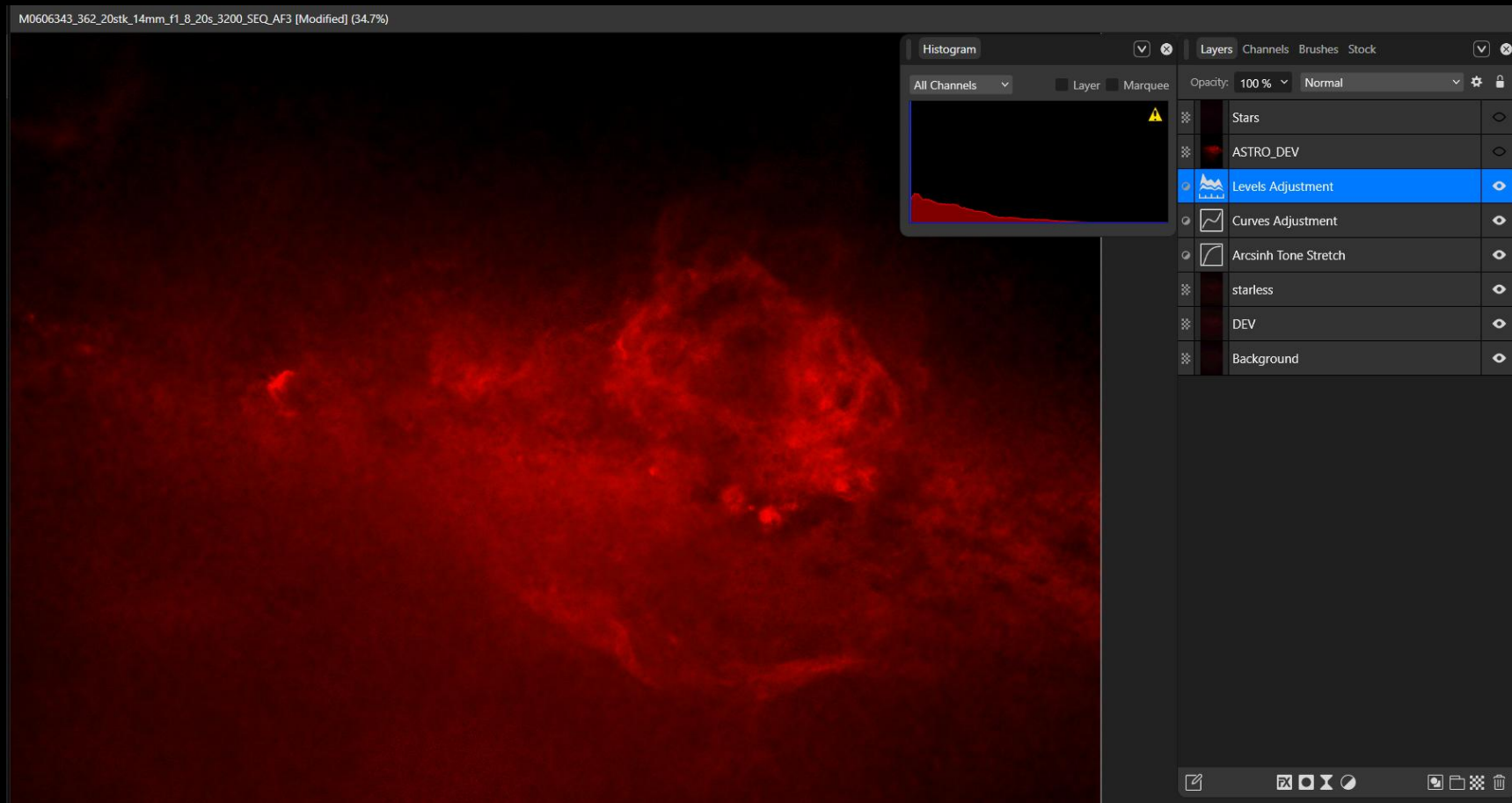


14mm f/1.8 20 sec ISO 3200 12nm Ha filter Stack of 20 images



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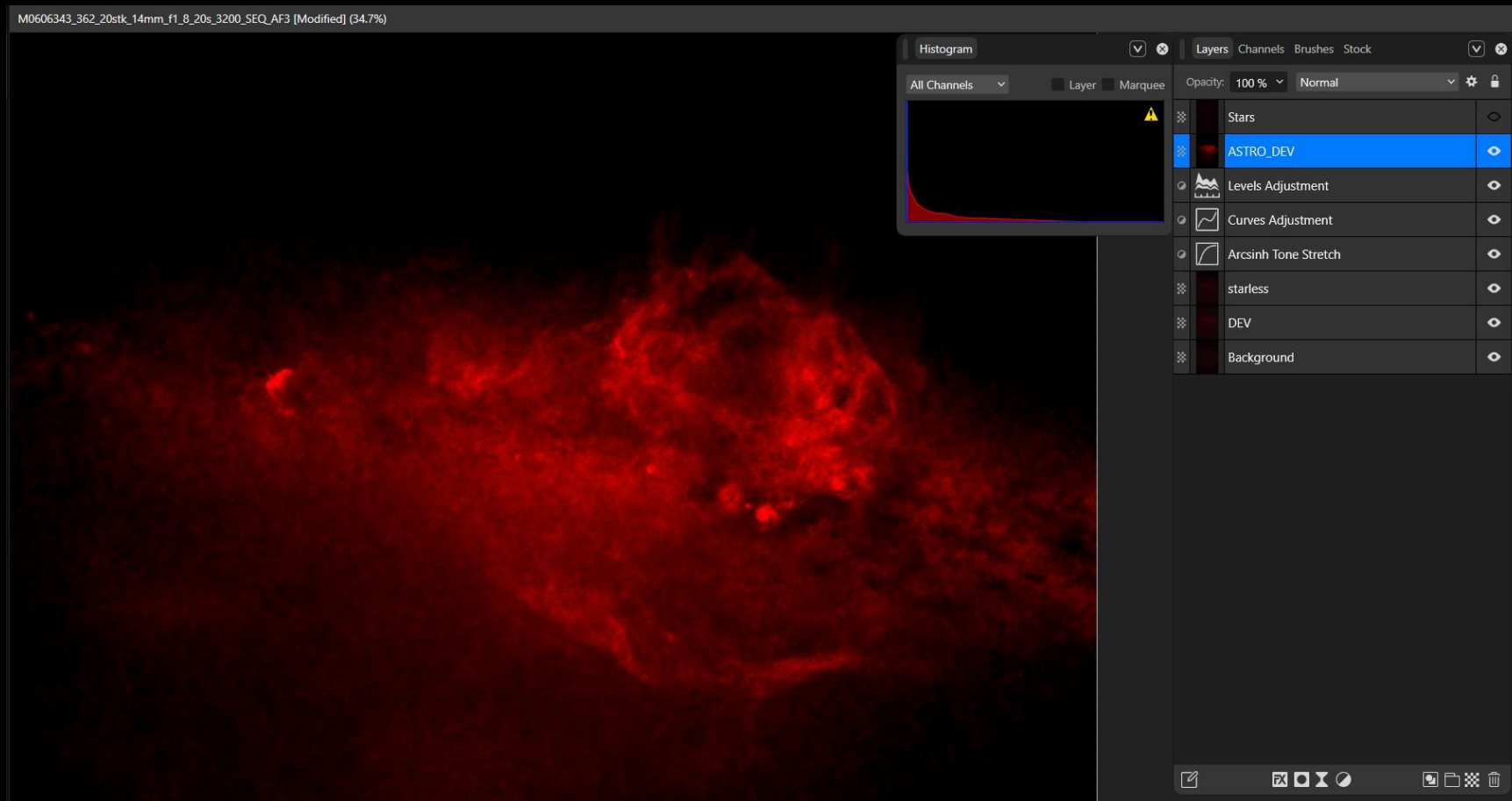


14mm f/1.8 20 sec ISO 3200 12nm Ha filter Stack of 20 images



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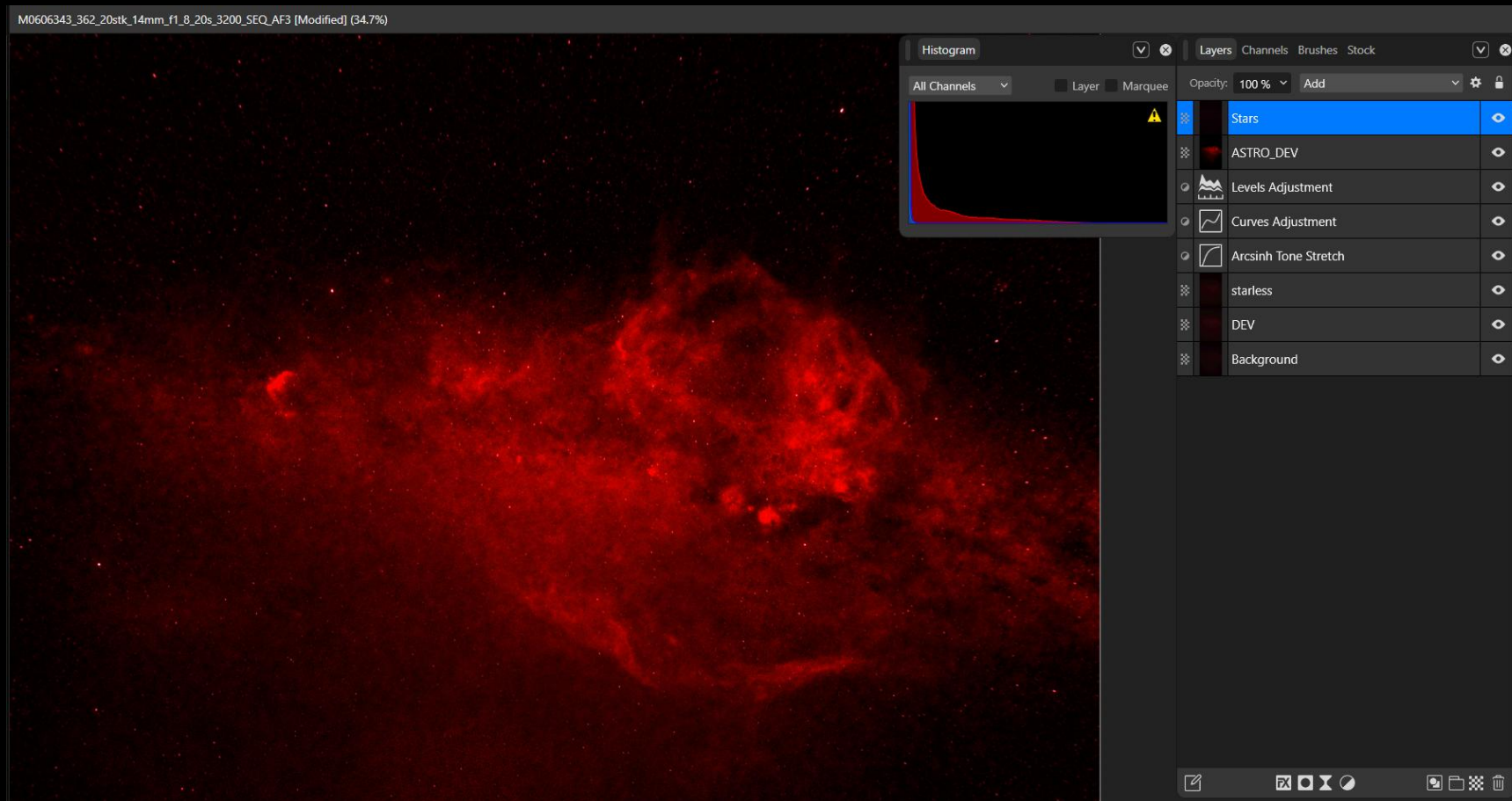


14mm f/1.8 20 sec ISO 3200 12nm Ha filter Stack of 20 images



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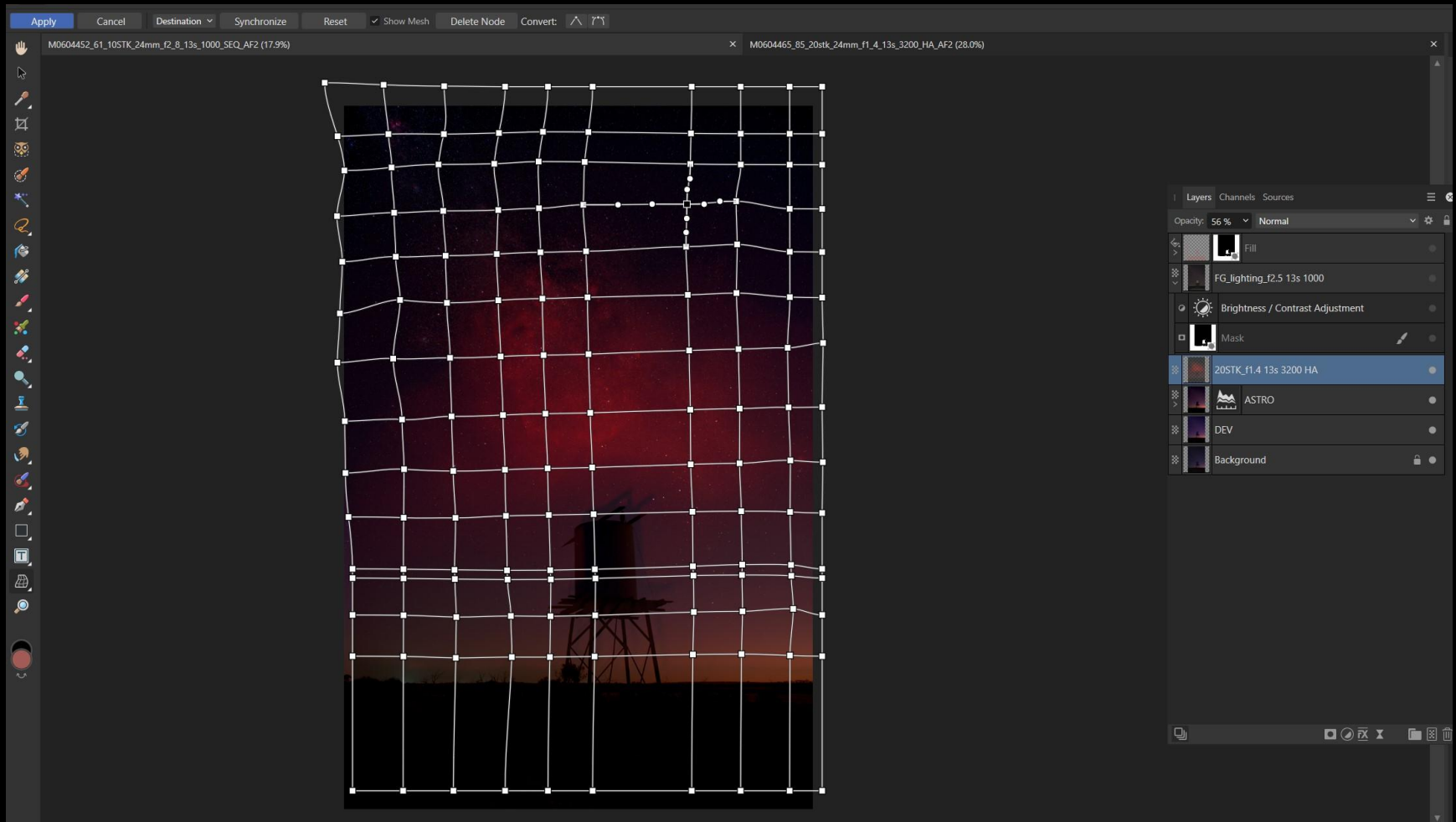


14mm f/1.8 20 sec ISO 3200 12nm Ha filter Stack of 20 images



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Export as a TIFF; add as a layer to the visible sky and use “Mesh-WARP” tool to align the stars



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Use Blend Mode on HA layer (Screen / Lighten) and reduce Opacity to taste
NB: There are 33 different blend modes in Affinity



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Pano comprising 325 individual shots



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Starlink Satellites



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Simplify your processing
Get it “right” in-camera



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Layers Channels Sources

Opacity: 80 % Passthrough

>		Bandpass Sharpening (Regular)	●
		DeN	●
		B&W	●
		Levels Adjustment	●
		4N117879.CR2	●



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Photos by Lee Jeffries
for the most recent
Metallica album; 72
Seasons



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The **Dragan effect** (developed by Polish photographer Andrzej Dragan) is a photo-editing technique for portraits.

It produces a gritty, high-contrast, and hyper-detailed look. Characterised by desaturated colours, deep shadows, and exaggerated skin textures.



- Duplicate your original
- Turn to B&W
- Apply a High Pass filter to punch up the details
- Change blend mode to Vivid Light or Hard Light
- Duplicate again if required



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Layers Channels Sources

Opacity: 35 % ▾ Hard Light ▾ ⚙

- Curves Adjustment
- Levels Adjustment
- B&W Vivid Light 10%
- High Pass
- B&W
- sharp
- High Pass
- Brightness / Contrast Adjustment
- face
- HSL Shift Adjustment
- B&W Hard Light 35%
- ColFX
- Background



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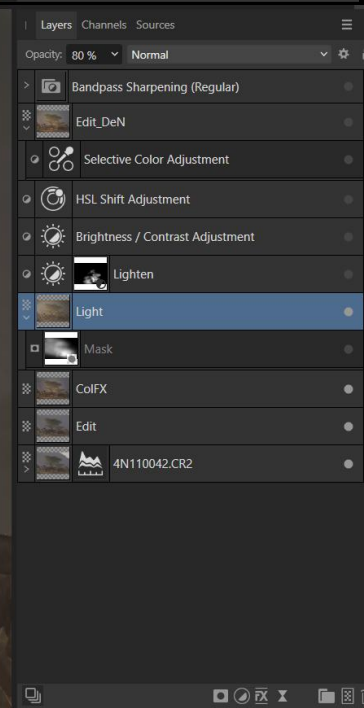
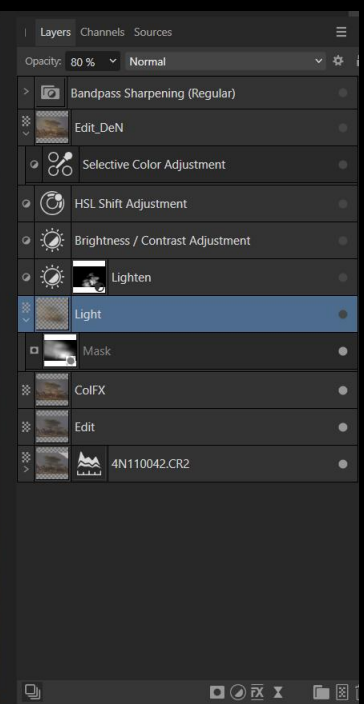
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Filters - Lighting



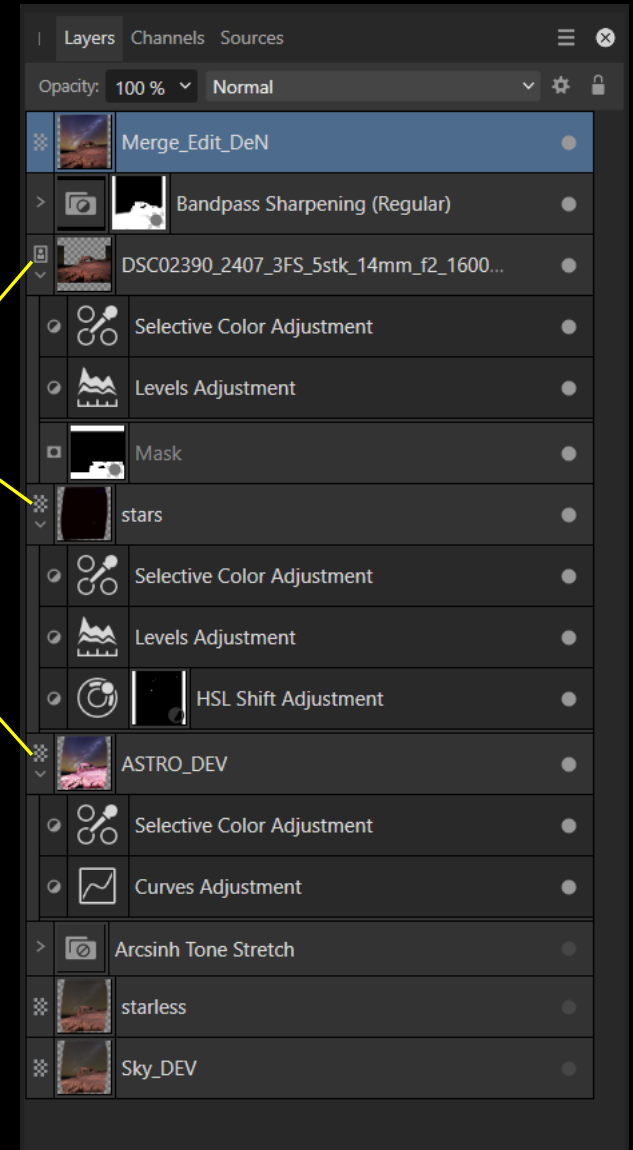
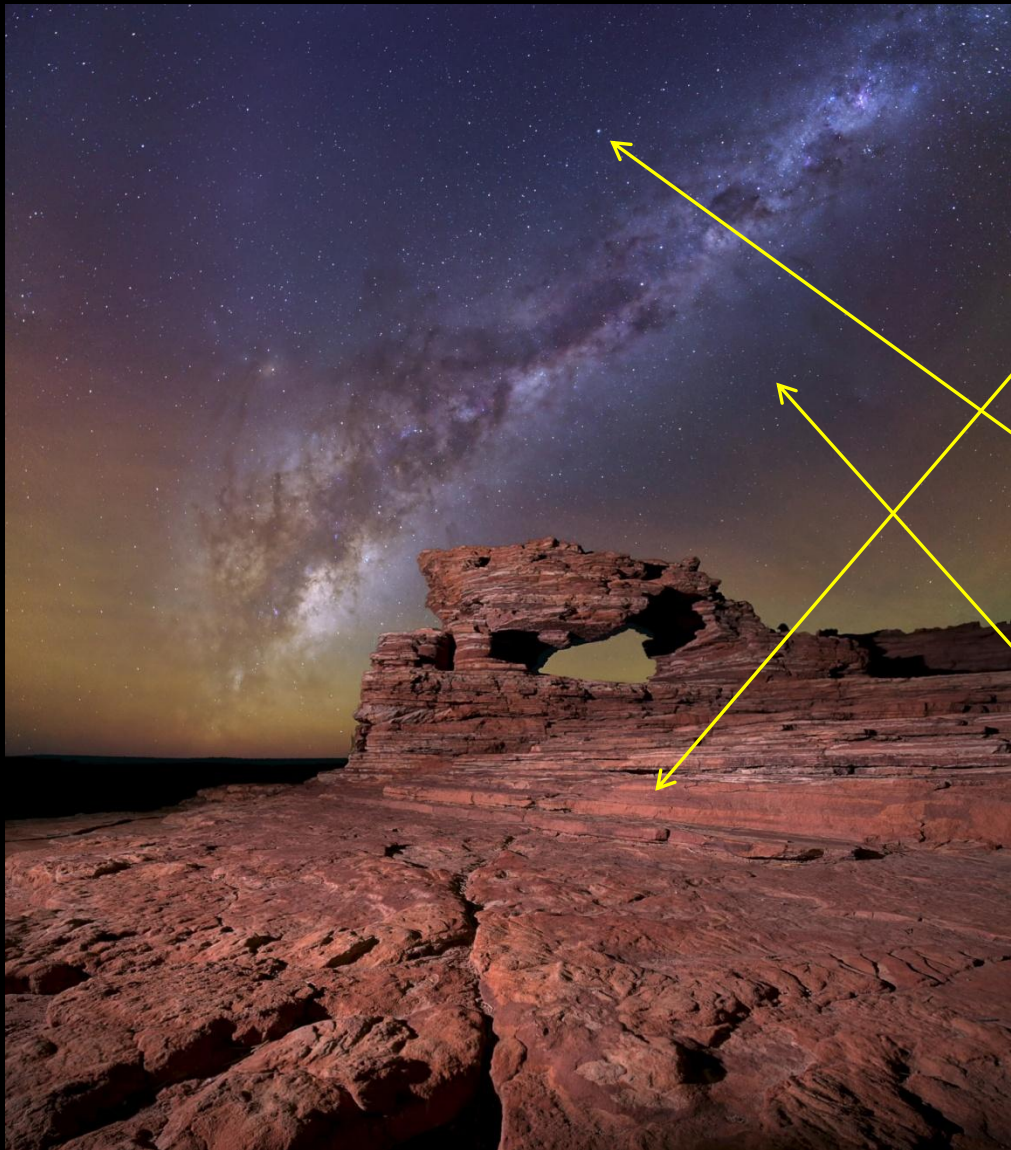
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Selective Colour Adjustment



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Change your viewpoint



Low vantage point with
15mm lens to emphasise
the foreground

Exposure blend

Midground is diminished

Shoot with intent



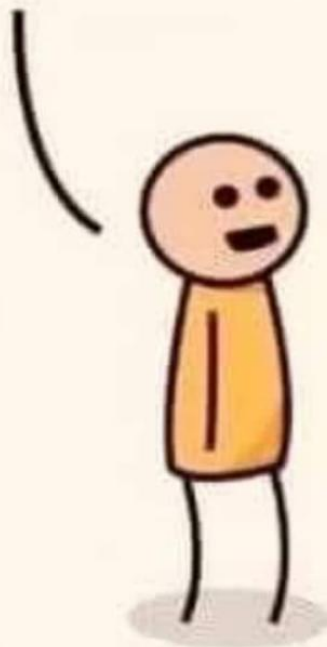
Change your viewpoint



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That spider bit me..
Am I going to become
Spiderman?



No. This is
Australia, you're
going to die





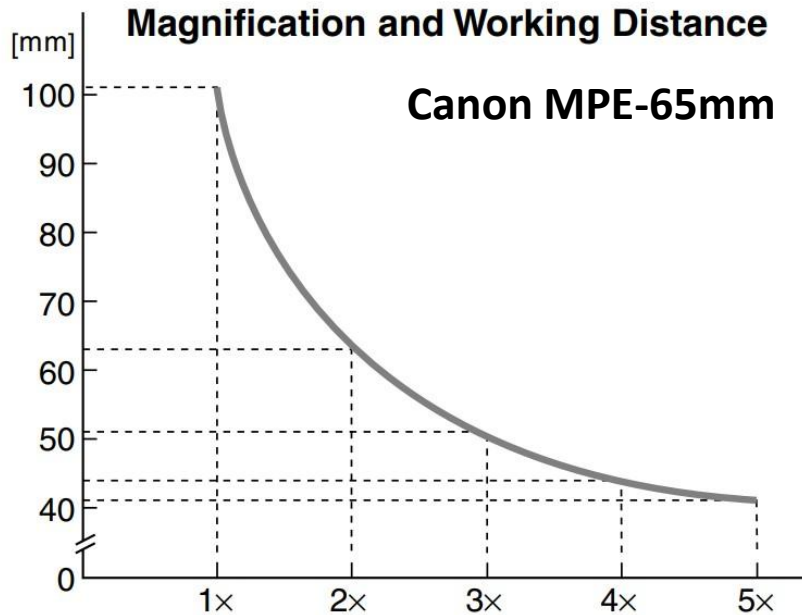
Maratus chrysomelas



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Small World Problems



Depth-of-field Table

Magnification	f/2.8	f/4	f/5.6	f/8	f/11	f/16
1×	0.396	0.560	0.792	1.120	1.584	2.240
2×	0.148	0.210	0.297	0.420	0.594	0.840
3×	0.088	0.124	0.176	0.249	0.352	0.498
4×	0.062	0.088	0.124	0.175	0.247	0.350
5×	0.048	0.067	0.095	0.134	0.190	0.269

- At 2x magnification the working distance is 64mm and the d.o.f. is only 0.42mm @f/8
- The effective aperture is f/24
- Flash is essential



Use of Flash



Godox TT685



Yongnuo YN24EX

Control of the light

Stable settings &
low ISO

Allows high
shutter speed

Can create dark
backgrounds due
to light fall-off





Background lighting controlled by shutter speed selection



Use of Flash

Control of the light

Allows high
shutter speed

Gives dark
backgrounds due
to light fall-off



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Focus stacking

Extend the depth of field in final photo



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Input to focus stack

Start



End



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Male *Maratus gemmifer* (focus stack of 6 images)



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Shooting Technique

- Handheld; manual mode
- Get stable
- Keep breathing!
- Focus by moving the camera
- Burst mode





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Composition – Leading Lines

Use natural lines
to draw the eye to
the subject



Maratus speciosus



Composition – Selective Focus



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Editing for macro

- Keep it simple
- Focus stack is typically 60% of the edit
- Highlight the subject
- Remove sensor dust
- Selective sharpening



Focus stacking Fail



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Male *Maratus gemmifer* (focus stack of 7 images)



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Post Processing – what can it do?

021B8565_69_5stk_AF_uni [Modified] (37.3%)

Before



Male *M. unicus*



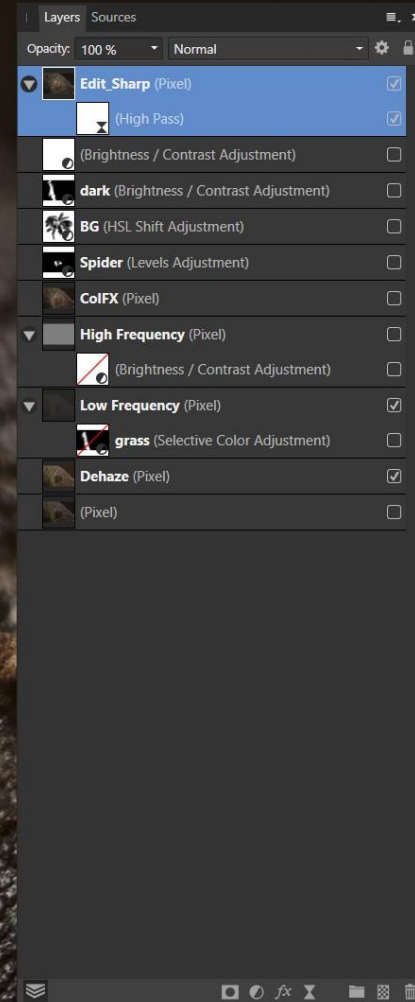
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Post Processing

021B8565_69_5stk_AF_uni [Modified] (37.3%)

After



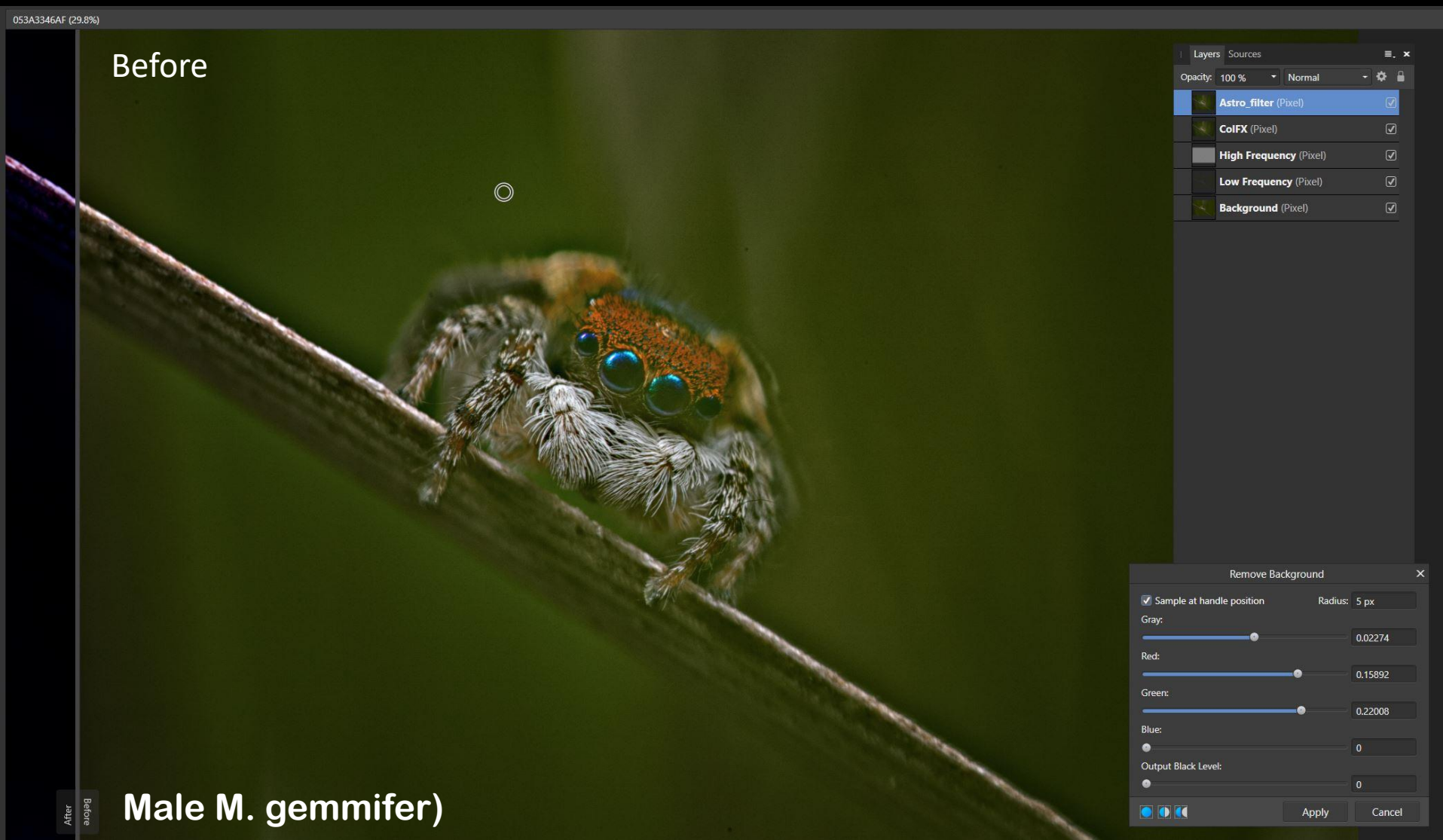
Male M. unicup



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Post Processing – Astro filter



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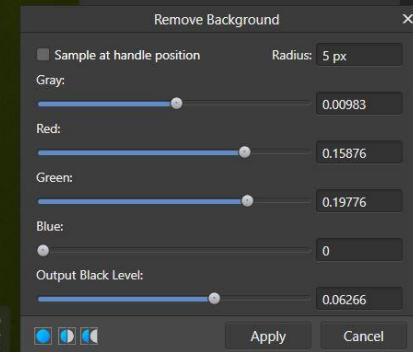
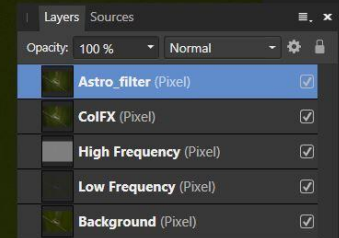
Post Processing – Astro filter

053A3346AF (29.8%)

After



Male *M. gemmifer*)



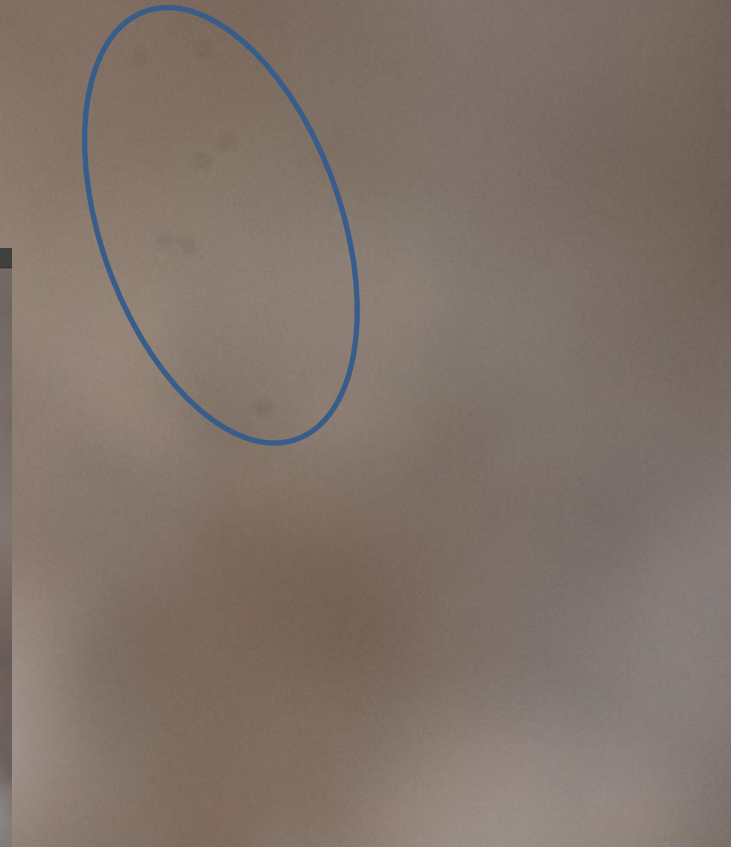
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053A4398_4404_7stk_AF [Modified] (119.0%)

Focus Stacking (7 images)

053A4398_4404_7stk_AF [Modified] (39.0%)



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YouTube - Some Affinity people to follow

- Ivan Weiss – portrait editing advice
- Greg Rowney – Grow Photography
- James Ritson – astro macros
- Affinity Revolution – good intro

- Sean Tucker





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Crab spider (5 images)



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Crab spider with bee (1 image)

Focus Stacking (16 images)



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M. personatus (2 images)



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M. electricus (3 images)



Maratus hakea (5 images)



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Potential new species (3 images)



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M. banyowla



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M. clupeatatus



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M. speciosus (3 images)



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M. azureus (3 images)



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M. personatus (1 image)



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8 panel panorama
7 stacked images in each panel
24mm lens at f/2, 13sec, ISO 1000.



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560mm f/13 4 sec ISO 400



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Aurora Australis



14mm f/2 6 sec ISO 800



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Thank You



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