

<b>Object</b>	<b>IC1318</b>
Common Name	Gamma Cygni Nebula
Alternate Name (s)	
Visual Magnitude	2,2
Distance ► Object	1.500 ly
Apparent Size	50' × 30'
Object R.A.	20h 16m 48.0s[
Object DEC	+41° 57' 24"[
WikiLink	<a href="https://en.wikipedia.org/wiki/Sadr_Region">https://en.wikipedia.org/wiki/Sadr_Region</a>



20241023\_IC1318\_ASI294\_0340-03WWM.jpg

Link ► Picture	<a href="#">IC1318_20241023</a>
Description	Emission Nebula
Constellation	Cygnus

## Picture Data

Work Status	Published	Quality	****		
Source Format	Photo	Picture Center R.A.	20h27m43s		
Tot./Act. Frames/Pane	30	28	Picture Center DEC	+40°22'42"	
H / V Panes	1	1	H/V FoV [°]	1,8268	1,2434
Exp. [s] / Frame	180	Above horizon [°]	78,2°		
Total Time / Pane [min]	84,00	84,00	View Direction	SW 208,9°	

## Camera Data

	<b>ZWO Optical</b>	<b>ASI294MC-Pro</b>	<b>ZWOASI294</b>
Camera Angle [°]	81,3645	Pixel Pitch [µm]	4,63
Gain or ISO	120	Camera Temp. °C	-10

## Observation Site

Observation Start	2024-10-23T20:10:01 UTC+/- +1h	Observation End	2024-10-23T21:41:04	
Observation Site	DE Göttingen MBR	Site Elevation /Bortle	182	5
Province	NDS	Site Coordinates	51° 34' N, 9° 56' E	

## Sky & Moon

Sky Index   Total Clouds	2,8	9	%	Moon Rise   Set	23:49:00	15:51:00
Outside Temp. °C	6	Moon Age [d]	20,45			
Moon Phase  % Illum.	UNKNOWN	57	%	Moon ►Target Dist.	UNKNOWN	

## Optical Configuration

	<b>TS600AS294</b>	<b>TS600ASI294T252</b>			
Lens or Scope	TSO APO 90/600	Focuser	M90 TS600 Rack + Pinion		
Type Of Build	APO Triplet Refractor	Focuser Position [mm]	59,80	EAF Steps	20619
Brand	TS-Optics	Optical Factor	1		
Additional Optics	M63 WO Rotator	FoL norm actual [mm]	599	599	
Filter	Optolong 2" L-eNhanche	<a href="#">DawesLimitLink</a>	<a href="#">1,74 Arcsec</a>		
Diameter [mm]	90	Optical Scale ["/px]	1,595		
Aperture / f-stop	6,66				

## Other Hardware & Software

GuideScope	ZWO 30/120 mini	Mount	ZWO AM3
GuiderHW	ASIAIR Pro	SessionControl	ASIAIR Pro
GuiderSW	ASiAir App	PostProcessingSW	BlurXTerminator, NoiseXTerminator, PixInsight

## More ...

Work Folder	<a href="#">2024\20241023_IC1318_0340_GOE-MBR</a>
Comment	
Remarks	<a href="#">1. Session Planning and Objective</a>

The objective of this session was two-fold:

1) Gain initial experience with the new ZWO AM3 mount

2) Try out polar alignment without a view of Polaris with the ASI AIR Plus

This was the first night with a clear view after many weeks of clouds and rain. An easy-to-photograph DSO object should therefore serve as a target, and the nebula IC1318 or Gammy Cygni Nebula, which is high in the sky at this time of year, was the obvious choice.

## 2. Location and sky

Suburban, very high humidity (above 90%!), but clear skies.

## 3. Session Results

ad 1): the ZWO AM3 mount worked as expected

ad 2): also the ASI AIR polar alignment using the **All Sky Polar Alignment** without Polaris visibility worked well as long as you have clear sight in the northern or southern direction (West and East will not work!) The process is going to be documented in the **StarGuide section of StarLust**.

## 4. Plate Solving and Camera Rotation Results

ASI AIR SkyAtlas planned rotation:

ASI AIR Plate Solve result after GoTo:

Astrometry.net rotation measurement:

## 5. Post Processing

Image selection, registration, background enhancement and color correction were done in PixInsight (Post Processing using PixInsight (starlust.de) ).

Steps in PixInsight:

1) Fast Batch Preprocessing

2) ABE - Automatic Background Extraction: \*\_ABE

3) Image Solver (to inject missing astrometric data into the FITS file): \*\_SOLV

4) SPCC - Spectrometric Color Calibration: \*\_SPCC

5) CT - Curves Transformation: \*\_CT

6) NoiseXTerminator: \*\_NX

```
var P = new NoiseXTerminator;
```

```
P.ai_file = "NoiseXTerminator.2.pb";
```

```
P.denoise = 0.90;
```

```
P.detail = 0.30;
```

7) BlurXTerminator: \*\_BX

```
var P = new BlurXTerminator;
```

```
P.ai_file = "BlurXTerminator.4.pb";
```

```
P.correct_only = false;
```

```
P.correct_first = false;
```

```
P.nonstellar_then_stellar = false;
```

```
P.lum_only = false;
```

```
P.sharpen_stars = 0.65;
```

```
P.adjust_halos = 0.00;
```

```
P.nonstellar_psf_diameter = 0.00;
```

```
P.auto_nonstellar_psf = true;
```

```
P.sharpen_nonstellar = 0.8;
```

8) Final Stretch with Histogram Transform: \*\_FULL

No further image post processing was required.

No color or hue changes were made; the final image has natural colors.

## 6. Lessons Learned

Enter Text

## 7. Main logfile entries

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