

<b>Main Object</b>	<b>IC405</b>		
Common Name	Flaming Star Nebula		
Alternate Name	Caldwell 31		
Visual Mag.   Size	6,00	37' × 10'	
Distance	1500 ly		
Object R.A.   DEC coord.	05h 16m 05s	+34° 27' 49"	
Description	Emission nebula		
Constellation	Auriga		
Other Objects	<input type="text" value="NGC1893"/>		



20250302\_IC405\_ASI2600\_0364-01WM.jpg

 StarImage Link [IC405\\_20250302](#)

Telescopius Link

 Wikipedia Link <https://en.wikipedia.org/>

## Image Properties

Work Status	Published		Rating	*****	
Source Format	Photo		Picture Center R.A.	05h 18m 32.926s	
Tot./Act. Frames/Pane	60	40	Picture Center DEC	+34° 02' 37.928"	
H / V Panes	1	1	FoV measured H/V [°]	2° 52' 22.9"	1° 54' 55.3"
Exp. [s] / Frame	180		Above horizon [°]	65°	
Total Time / Pane [min]	120,00	120,00	View Direction	SW 232°	
<b>Camera Data</b>	<b>ZWO Optical</b>		<b>ASI2600MCAir</b>	<b>ZWOASI2600</b>	
Camera Angle [°]	178,2		Pixel Pitch [µm]	3,761	
Gain or ISO	100		Camera Temp. °C	-10	

## Observation Site

Observation Start	2025-03-02T20:10:14 UTC+/- +1h	Observation End	2025-03-02T23:22:06	
Observation Site	DE Göttingen MBR	Site Elevation / Bortle	182	4
Province	NDS	Site Coordinates	51° 34' N, 9° 56' E	

## Sky & Moon

Sky Index   Total Clouds	2,8	15	%	Moon Rise   Set	08:06:00	23:17:00
Outside Temp. °C	-2			Moon Age [d]	2	
Moon Phase   % Illum.	1st quarter	11	%	Moon ► Target Dist.	UNKNOWN	

## Optical Configuration

<b>TS600ASI2600x075i</b>	<b>TS600ASI2600T173R75</b>		
Lens or Scope	TSO APO 90/600	Focuser	M90 TS600 Rack + Pinion
Type Of Build	APO Triplet Refractor	Focuser Position [mm]	39,91 EAF Steps 13761
Brand	TS-Optics	Optical Factor	0,75
Additional Optics	M63 Riccardi 0.75 Reducer	FoL norm   actual [mm]	449,25 449,25
Filter	Optolong 2" L-eNhanche	<a href="#">DawesLimitLink</a>	<a href="#">2,32 Arcsec</a>
Diameter [mm]	90	Optical Scale ["/px]	1,727
Aperture / f-stop	4,99		

## Other Hardware & Software

GuideScope	ASI2600 Guide Sensor	Mount	ZWO AM3
GuiderHW	ASIAIR Pro	SessionControl	ASIAIR Pro
GuiderSW	ASiAir App	PostProcessingSW	PixInsight

## More ...

 Work Folder [2025\20250302\\_IC405\\_0364\\_GOE-MBR](#)

Comment

Remarks

### 1. Session Planning

Just searched for a target that was well above the trees and high up in the sky.

### 2. Location and sky

From my backyard - quite good sky conditions

### 3. Session Results

OK

### 4. Plate Solving and Camera Rotation Results

```
Projection ..... Gnomonic
Projection origin ..... [2999.914039 1999.636099] px -> [RA: 5 18 32.863 Dec: +
34 02 37.23]
Resolution ..... 1.724 arcsec/px
Rotation ..... -178.395 deg
Reference system ..... ICRS
Observation start time ... 2025-03-02 19:07:11 UTC
Observation end time .... 2025-03-02 21:30:51 UTC
Geodetic coordinates ..... 9 56 06 E 51 34 26 N 0 m
Focal distance ..... 449.91 mm
Pixel size ..... 3.76 um
Field of view ..... 2d 52' 22.9" x 1d 54' 55.3"
Image center ..... RA: 5 18 32.862 Dec: +34 02 37.22 ex: +0.031426 px
ey: +0.011034 px
Image bounds:
  top-left ..... RA: 5 11 35.347 Dec: +33 07 09.77 ex: -1.816093 px
ey: -1.879353 px
  top-right ..... RA: 5 25 14.392 Dec: +33 02 22.61 ex: +1.283073 px
ey: -1.859018 px
  bottom-left ..... RA: 5 11 41.237 Dec: +35 01 36.67 ex: -1.403793 px
ey: +1.563289 px
  bottom-right ..... RA: 5 25 39.705 Dec: +34 56 40.77 ex: +1.211927 px
ey: +1.391584 px
```

### 5. Post Processing

#### Steps in PixInsight

1. Process Blink to deselect frames with satellite traces
2. Process Subframe Selector to disregard all frames below FWHM 3
3. FBPP on remaining 8 images with drizzle integration, resulting master frame has an extreme green background (sky was not quite clear!)
4. Proceeded with masterLight\_BIN-1\_6248x4176\_EXPOSURE-180.00s\_FILTER-NoFilter\_RGB\_drizzle\_1x\_autocrop.xisf file
5. renamed the master file to 20250221\_NGC1499\_ASI2600\_0363-01.
6. Automatic Background Extraction
7. PCC Photometric Color Calibration
8. Deconvolution: BlurXTerminator
9. De-Noise: NoiseXTerminator
10. Curves Transformation to enhance the colors
11. Histogram Transform to generate a final full stretched image
12. Picture cropped to 6000x4000px
13. Plate solved the final picture to calculate field of view and center coordinates
14. saved as .jpg for publishing

### 6. Lessons Learned

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### 7. Main logfile entries

```
2025/03/02 19:59:54 Plan New Plan Start
2025/03/02 19:59:55 [Autorun|Begin] HIP 24727 Start
2025/03/02 20:02:26 [Guide] Stop Guiding
2025/03/02 20:02:28 [AutoCenter|Begin] Auto-Center 1#
2025/03/02 20:02:28 Mount slews to target position: RA:5h19m57s DEC:+34°5'21"
2025/03/02 20:02:46 Solve succeeded: RA:5h19m56s DEC:+34°5'52" Angle = 178.491, Star
number = 207
2025/03/02 20:03:09 [AutoFocus|Begin] Run AF before Autorun start, exposure 2.0s
Bin1, temperature 0.9°C
2025/03/02 20:06:54 Auto focus succeeded, the focused position is 13753
2025/03/02 20:47:05 [AutoFocus|Begin] Run AF when temperature changed 2 degrees,
0.6°C changed to -2.3°C, exposure 2.0s Bin1, temperature -2.4°C
2025/03/02 20:51:00 Auto focus succeeded, the focused position is 13738
2025/03/02 21:09:47 [AutoFocus|Begin] Run AF when temperature changed 2
degrees, -2.7°C changed to -0.6°C, exposure 2.0s Bin1, temperature -0.6°C
2025/03/02 21:13:36 Auto focus succeeded, the focused position is 13733
2025/03/02 22:41:50 Solve succeeded: RA:5h19m57s DEC:+34°3'55" Angle = 178.367, Star
number = 75
2025/03/02 23:22:06 [Guide] Stop Guiding
2025/03/02 23:22:07 [Autorun|End] Finish Autorun
2025/03/02 23:22:07 Plan New Plan Finish
2025/03/02 23:22:08 Turn Off Cooling
2025/03/02 23:22:08 [Guide] Stop Looping
2025/03/02 23:22:08 Stop Tracking
2025/03/02 23:22:23 Mount GoTo Home POS
2025/03/02 23:23:01 EAF back to zero position failed
```