ObservationReport

all measures in mm

Observation-ID	0440	v	01	on	2026-11-14 18:30
Rating	****			Status	PostProcessed

STARLUST.DE

Main Object	**IC1805**			
Common Name	Heart Nebula			
Alternate Name	Sh2-190			
Visual Mag. | Size	65,00	60x60'		
Distance	6.2 ly			
Object R.A. | DEC coord.	02h 35m 12.55s	+61° 32' 16.7"		
Description	Emission Nebula			
Constellation	Cassiopeia			
Other Objects	IC1795			



20261114_IC1805_ASI2600_0440-01.jpg

StarImage Link	OID0440
Telescopius Link	https://telescopius.com/ic-
Wikipedia Link	https://en.wikipedia.org/wi

Image Properties				
Source Format	Photo		Optical Scale ["/px]	1,7270
Tot./Act. Frames/Pane	117	84	Picture Center R.A.	2h32m23.158s
H / V Panes	1	1	Picture Center DEC	+61°35m42.33s
Exp. [s] / Frame	180		FoV measured H/V [°]	2,996 2,002
Total Time / Pane [min]	252,00	252,00	Above horizon [°]	51° 22' 42,8"
			View Direction	NE 46° 23' 46,6"

Camera Data	**ZWO Optical**		**ASI2600MCAir**	**ZWOASI2600**
Camera Angle [°]	291,7		Pixel Pitch [µm]	3,761
Gain or ISO	100		Camera Temp. °C	-10

Observation Site				
Observation Start	2026-11-14T18:30:00	UTC+/- +1h	Observation End	2026-11-15T00:30:00
Observation Site	DE Göttingen Weende		Site Elevation / Bortle	182 4
Province	NDS		Site Coordinates	9° 56' 11" E; 51° 34' 26" N

Sky & Moon						
Sky Index | Total Clouds	3,5	3	%	Moon Rise | Set	12:36:00	20:08:00
SQM |Outside Temp. °C	0	2		Moon Age [d]	5	
Moon Phase |% Illum.	1st quarter	26	%	Moon ▶Target Dist.	120	

Optical Configuration	**TS600ASI2600x0.75CAAN**		**TS600ASI2600T202x0.75**		
Lens or Scope	TSO APO 90/600		Mechanical Focuser	M90 TS600 Rack + Pinion Focuser	
Type Of Build	APO Triplet Refractor		Electronic Focuser	☑	
Brand	TS-Optics		Focuser Position Steps	1234	[mm] 3,58
Additional Optics	M63 Riccardi 0.75 Reducer	▶	Optical Factor	0,75	
Filter	Optolong 2" L-eNhance		FoL norm|actual [mm]	449,25	446,3045
Diameter [mm]	90		DawesLimitLink	2,32 Arcsec	
Aperture / f-stop	4,99				

Other Hardware & Software				
Guide Scope + Camera	NONE	ASI2600Guide	Mount	iOptron iEQ45 Pro
GuiderHW	ASIAIR		SessionControl	ASIAIR
GuiderSW	ASIAIR		PostProcessingSW	PI-SFS, PI-BLINK, GraXpert, BlurXTerminator, PI-SPCC, NoiseXTerminator, StarXTerminator, PI-MAS

More ... (see also next page)	
Work Folder	2026\20261114_0440_IC1805_Weende
Comment/Title	Heart Nebula (IC1805) in Cassiopeia

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Remarks

Session Planning

After many months, finally a reasonably clear night without a distracting moon, even though the humidity and low temperatures caused haze near the ground—still, it was a good opportunity to finally photograph the Heart Nebula (along with the Fishhead Nebula) in its full glory using my small 600mm refractor and the 0.75x reducer/flattener.

Location and sky

see details above

Session Results

At the start of the exposure, the effect of the haze was still minimal, but as the temperature dropped (reaching just below 0°C by the end), the image quality unfortunately deteriorated more and more, so that only 84 of the original 117 exposures could be used; 4 light frames were also unusable due to satellite trails. For some reason, the Meridian Flip failed four times in a row, but after stopping and restarting the plan, the recordings were able to continue without any further problems.

Post Processing

PixInsight Development Steps

Culling

[x]BK: Blink
[x]SFS: Subframe Selector

Alignment and Integration

[x]FBPP: Fast Batch PreProcessor (Autocrop, Drizzle)

Linear Image Processing

[x]GX: GraXpert
[x]BX: BlurXTerminator
[x]SPCC: Spectrometric Color Calibration
[x]NX: NoiseXTerminator

Splitting and De-Linearizing the image

[x]SX: StarXTerminator: splitting the image intoStars and DSO objects

Stars Image:

[x]MAS: Multiscale Adaptive Stretch

DSO Image:

[x]MAS: Multiscale Adaptive Stretch

Combining Stars and DSO Image

[x]PixMath: Add DSO and Stars into final image

No further image post processing was required.
No color or hue changes were made; the final image has natural colors.

Lessons Learned

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Main logfile entries

not published

Image Keywords

ObservationID=#0440, IC1805, Heart Nebula, ****, Constellation=Cassiopeia, 2026, NOV, Type=Photo, Site=Göttingen Weende, DE, Config=TS600ASI2600x0.75CAAN, D=90mm, f/5.0, f=449mm, Filter=OLeN, Gain=100, Lens=TS600, LensName=TSO APO 90/600, Mount=iOptron iEQ45 Pro, n=84, OtherOptics=M63 Riccardi 0.75 Reducer, PanesH=1, PanesV=1, Status=PostProcessed, t=180s, ZWOASI2600, AstroSW=PI-SFS, AstroSW=PI-BLINK, AstroSW=GraXpert, AstroSW=BlurXTerminator, AstroSW=PI-SPCC, AstroSW=NoiseXTerminator, AstroSW=StarXTerminator, AstroSW=PI-MAS