

Object

NGC7000

Common Name	North America Nebula
Alternate Name	Caldwell 20
Visual Magnitude	4
Distance ► Object	2590 ly
Apparent Size	120 × 100'
Object R.A.	20h 59m 17.1s
Object DEC	+44° 31' 44"
WikiLink	https://en.wikipedia.org/wiki/North_America_Nebula



20220828_NGC7000_ASI294_0002-1_1280.jpg

Link ► Picture	NGC7000_20220828
Description	Emission Nebula
Constellation	Cygnus

Picture Data

Work Status	Published	Quality	****
Format	Photo	Picture Center R.A.	21h 01m 10.515
Tot./Act. Frames/Pane	19 19	Picture Center DEC	+43° 43' 56.515"
H / V Panes	1 1	H/V FoV [°]	1,8268 1,2434
Exp. [s] / Frame	300	Above horizon [°]	78,9
Total Time / Pane [min]	95,00 95,00		

Camera Data

	ZWO	ASI294MC-Pro	ZWOASI294
Camera Angle [°]	44,5	Pixel Pitch [µm]	4,63
Gain or ISO	120	Camera Temp. °C	-10

Observation Data

Observation Start	2022-08-28T22:04:01 UTC+/- +1h	Observation End	2022-08-28T23:40:23
Observation Site	DE GÖ MBR	Site Elevation /Bortle	182 5
Province	NDS	Site Coordinates	51° 34' N, 9° 56' E

Sky & Moon

Sky Quality	1,9	Outside Temp. °C	UNKNOWN
Seeing Index 1	5	Seeing Index 2	4
Moon Phase	1st quarter	Moon Age [d]	1,4
Moon Percent %	0	Distance ► Target	180
MoonRise	07:10:00	MoonSet	21:02:00

Optical Config.

	Config04a	L:1_E:100_C:1_O:-_T:97.8_F:UV	
Lens or Scope	TSO APO 90/600	FocalLength [mm]	599
Type Of Build	APO Triplet Refractor	Diameter [mm]	90
Brand	TS-Optics	Aperture / f-stop	6,66
Additional Optics	-	DawesLimitLink	1,74 Arcsec
Filter	UV+IR	Optical Scale ["/px]	1,595

Other Hardware & Software

GuideScope	Omegon 50/200	Mount	iOptron iEQ45 Pro
GuiderHW	ASiAirPro	SessionControl	ASiAirPro
GuiderSW	NONE	PostProcessingSW	PixInsight, Lightroom

More ...

Work Folder [20220828-220401_NGC7000_GÖ-MBR](#)

Remarks [1. Session Planning](#)

This session was initially intended to fix the camera rotation process and documentation on an ASI AIR device for later mosaic images.

[2. Location and sky](#)

But as the sky turned out to be fairly good for this location and season, I decided to go on with a ASI AIR session plan imported from Telescopius.com after finishing the camera rotation test.

3. Session Results

At the end the session ended abnormally after 19 exposures after a meridian flip as I manually stopped the session: it just took me too long to wait the preset long idle time of 2x5 minutes around the meridian flip.

4. Plate Solving and Camera Rotation Results

Coordinates and camera rotation (44,5°) obtained from Astrometry.net.

5. Post Processing

Post processed with PixInsight

6. Lesson learned

A 5 minutes idle time before and after a meridian flip wastes too much time. A 1 minute time lag before and after is sufficient on this mount / scope configurations.

7. Main logfile entries

This is the end of the session log:

2022/08/28 23:40:23 Exposure 300.0s image 19#

2022/08/28 23:45:25 [Guide] Stop Guiding

2022/08/28 23:45:25 Stop Tracking

2022/08/28 23:45:26 [Meridian Flip|Begin] Wait 13min28s to Meridian Flip

2022/08/28 23:56:38 Stop Autorun Manually

2022/08/28 23:56:38 [Meridian Flip|End] The target is centered, Meridian Flip failed

2022/08/28 23:56:38 Start Tracking

2022/08/28 23:56:39 [Guide] ReSelect Guide star

2022/08/28 23:56:40 [Guide] Start Calibrating

2022/08/28 23:56:40 [Guide] Select Guide Star failed, no star found

2022/08/28 23:56:40 [Guide] Stop Guiding

2022/08/28 23:56:40 Stop Tracking

2022/08/28 23:56:40 [Autorun|End] Pause Autorun

2022/08/28 23:56:41 Pause Plan 20220824 NGC7000

Log disabled at 2022/08/28 23:56:41