

## Object

**Common Name** C/2022 E3  
**Alternate Name** Comet ZTF  
**Visual Magnitude** 5  
**Distance ► Object**  
**Apparent Size**  
**Object R.A.**  
**Object DEC**  
**WikiLink** [https://en.wikipedia.org/wiki/C/2022\\_E3\\_\(ZTF\)](https://en.wikipedia.org/wiki/C/2022_E3_(ZTF))

## C/2022-E3



20230208-212756\_C-2022 E3\_ZWOASI294\_0001-02\_1280.jpg

**Link ► Picture** [C/2022-E3\\_20230208](#)  
**Description** Comet  
**Constellation** Auriga

## Picture Data

<b>Work Status</b>	Published	<b>Quality</b>	****
<b>Format</b>	Photo	<b>Picture Center R.A.</b>	04h 54m 20.535s
<b>Tot./Act. Frames/Pane</b>	100 1	<b>Picture Center DEC</b>	+33° 54' 44.278"
<b>H / V Panes</b>	1 1	<b>H/V FoV [°]</b>	1,8268 1,2434
<b>Exp. [s] / Frame</b>	60	<b>Above horizon [°]</b>	69,5°
<b>Total Time / Pane [min]</b>	1,00 1,00	<b>View Direction</b>	214,7°

## Camera Data

<b>ZWO</b>	<b>ASI294MC-Pro</b>	<b>ZWOASI294</b>	
<b>Camera Angle [°]</b>	272,6	<b>Pixel Pitch [µm]</b>	4,63
<b>Gain or ISO</b>	120	<b>Camera Temp. °C</b>	-4

## Observation Data

<b>Observation Start</b>	2023-02-08T19:33:49 UTC+/- +1h	<b>Observation End</b>	2023-02-08T21:27:56
<b>Observation Site</b>	DE GÖ MBR	<b>Site Elevation /Bortle</b>	182 5
<b>Province</b>	NDS	<b>Site Coordinates</b>	51° 34' N, 9° 56' E

## Sky & Moon

<b>Sky Quality</b>	2,01	<b>Outside Temp. °C</b>	-2
<b>Seeing Index 1</b>	3	<b>Seeing Index 2</b>	1
<b>Moon Phase</b>	3rd quarter	<b>Moon Age [d]</b>	18
<b>Moon Percent %</b>	91	<b>Distance ► Target</b>	UNKNOWN
<b>MoonRise</b>	20:16:00	<b>MoonSet</b>	09:11:00

## Optical Config.

<b>Config04c</b>	<b>L:1_E:100_C:1_O:-_T:89.7_F:-</b>		
<b>Lens or Scope</b>	TSO APO 90/600	<b>FocalLength [mm]</b>	599
<b>Type Of Build</b>	APO Triplet Refractor	<b>Diameter [mm]</b>	90
<b>Brand</b>	TS-Optics	<b>Aperture / f-stop</b>	6,66
<b>Additional Optics</b>	-	<b><a href="#">DawesLimitLink</a></b>	<a href="#">1,74 Arcsec</a>
<b>Filter</b>	-	<b>Optical Scale ["/px]</b>	1,595

## Other Hardware & Software

<b>GuideScope</b>	ZWO 30/120 mini	<b>Mount</b>	iOptron iEQ45 Pro
<b>GuiderHW</b>	ASiAirPro	<b>SessionControl</b>	ASiAirPro
<b>GuiderSW</b>	ASiAirPro	<b>PostProcessingSW</b>	PixInsight + Lightroom

## More ...

**Work Folder** [2023\20230208-193349\\_C-2022 E3\\_GÖ-MBR](#)  
**Remarks** Single frame (frame #20) of 100 original frames to show the comet in the constellation of Auriga

### 1. Session Planning

Used **SkySafari Pro** for the actual comet coordinates together with **ASI AIR Pro** for

GoTo and telescope guiding.

## 2. Location and sky

Unfortunately the sky conditions were only mediocre with high speed winds in the upper atmosphere and a rather bright sky resulting in much background noise. But this was the second night after many weeks of bad weather and rain. Had to quickly install and calibrate everything between sunset and before the nearly full moon rose above the horizon at 20:16h, I was still a little late before I could start the nearly 2 hours of frame capturing that only started at 19:33h local time (UCT+1).

## 3. Session Results

There was clearly too much sky brightness and a lot of background noise in the picture in no ideal conditions.

## 4. Plate Solving and Camera Rotation Results

ASIAIR rotation measurement: not done

Astrometry.net rotation measurement: 272,6° E of N

Plate Solve result (ASIAIR): not done

## 5. Post Processing

Used PixInsight for:

- Image selection
- Automatic Background Extraction
- and Full Final Stretch

and Lightroom for some color enhancement

No color or hue changes have been applied; the final image is showing natural colors.

## 6. Lessons Learned

none

## 7. Main logfile entries

Log enabled at 2023/02/08 19:31:00

2023/02/08 19:31:00 [Aautorun|Begin] C2022E3 Start

2023/02/08 19:31:00 Target RA:4h55m52s DEC:+33°56'51"

2023/02/08 19:31:00 Shooting 100 light frames, exposure 60.0s Bin1

2023/02/08 19:31:00 Start Tracking

2023/02/08 19:31:00 [AutoFocus|Begin] Run AF before Autorun start, exposure 2.0s

Bin1, temperature -1.4°C

2023/02/08 19:31:00 Find Focus Star

2023/02/08 19:31:05 Find Focus Star: detect and calculate star size 3.1 , EAF position 14419

2023/02/08 19:31:05 Find Focus Star: finding appropriate stars star size 3.1

2023/02/08 19:31:17 Find Focus Star: detect and calculate star size 3.7 , EAF position 14469

2023/02/08 19:31:17 Calculate V-Curve

2023/02/08 19:32:48 Auto focus succeeded, the focused position is 14420

2023/02/08 19:32:49 [AutoFocus|End] Auto focus succeeded

2023/02/08 19:32:49 Exposure 60.0s image 1#

2023/02/08 19:33:49 Exposure 60.0s image 2#

2023/02/08 19:34:50 Target RA:4h55m52s DEC:+33°56'50"

2023/02/08 19:34:50 Exposure 60.0s image 3#

...

2023/02/08 19:52:07 Exposure 60.0s image 20#

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2023/02/08 19:58:13 Exposure 60.0s image 26#

2023/02/08 19:59:14 Stop Tracking

2023/02/08 19:59:14 [Meridian Flip|Begin] Wait 4min24s to Meridian Flip

2023/02/08 20:04:58 Mount slews to target position: RA:4h55m52s DEC:+33°56'50"

2023/02/08 20:05:02 Exposure 10.0s

2023/02/08 20:05:13 Plate Solve

2023/02/08 20:05:18 Solve succeeded: RA:4h55m53s DEC:+33°56'55" Angle = 86.983, Star number = 177  
2023/02/08 20:05:18 The Mount has flipped  
2023/02/08 20:05:18 [AutoCenter|End] The target is centered  
2023/02/08 20:05:18 [Guide] Calibration data Flipped  
2023/02/08 20:05:18 [Meridian Flip|End] Meridian Flip succeeded  
2023/02/08 20:05:18 Start Tracking  
2023/02/08 20:05:18 Wait for Mount Settle  
2023/02/08 20:05:23 Start Tracking  
2023/02/08 20:05:23 [AutoFocus|Begin] Run AF after Auto Meridian flipped, exposure 2.0s Bin1, temperature -3.0°C  
2023/02/08 20:05:23 Find Focus Star  
2023/02/08 20:07:17 Auto focus succeeded, the focused position is 14416  
2023/02/08 20:07:17 [AutoFocus|End] Auto focus succeeded  
2023/02/08 20:07:17 Exposure 60.0s image 27#  
...  
2023/02/08 21:02:08 Exposure 60.0s image 81#  
2023/02/08 21:02:34 Stop Autorun Manually  
2023/02/08 21:02:34 [Autorun|End] Pause Autorun  
2023/02/08 21:03:50 [Guide] Dither  
2023/02/08 21:03:50 [Guide] Dither Settle  
2023/02/08 21:04:36 [Guide] Settle Done  
2023/02/08 21:04:36 Exposure 60.0s image 81#  
2023/02/08 21:05:37 Exposure 60.0s image 82#  
2023/02/08 21:06:38 Target RA:4h55m44s DEC:+33°54'28"  
2023/02/08 21:06:38 Exposure 60.0s image 83#  
2023/02/08 21:07:39 Exposure 60.0s image 84#  
2023/02/08 21:08:40 Exposure 60.0s image 85#  
2023/02/08 21:09:41 [Guide] Dither  
2023/02/08 21:09:41 [Guide] Dither Settle  
2023/02/08 21:10:39 [Guide] Settle Done  
2023/02/08 21:10:40 Exposure 60.0s image 86#  
...  
2023/02/08 21:14:44 Exposure 60.0s image 90#  
2023/02/08 21:15:45 [Guide] Dither  
2023/02/08 21:15:45 [Guide] Dither Settle  
2023/02/08 21:16:43 [Guide] Settle Done  
2023/02/08 21:16:43 Exposure 60.0s image 91#  
...  
2023/02/08 21:20:47 Exposure 60.0s image 95#  
2023/02/08 21:21:48 [Guide] Dither  
2023/02/08 21:21:48 [Guide] Dither Settle  
2023/02/08 21:21:56 Stop Autorun Manually  
2023/02/08 21:21:56 [Autorun|End] Pause Autorun  
2023/02/08 21:22:11 [Guide] Dither  
2023/02/08 21:22:11 [Guide] Dither Settle  
2023/02/08 21:22:51 [Guide] Settle Timeout  
2023/02/08 21:22:51 Exposure 60.0s image 96#  
...  
2023/02/08 21:26:56 Exposure 60.0s image 100#  
2023/02/08 21:27:56 [Autorun|End] Finish Autorun  
Log disabled at 2023/02/08 21:27:56