



DIY Astronomy: Eldorado Star Party

1/12/18



The best kept secret in Texas astronomy...

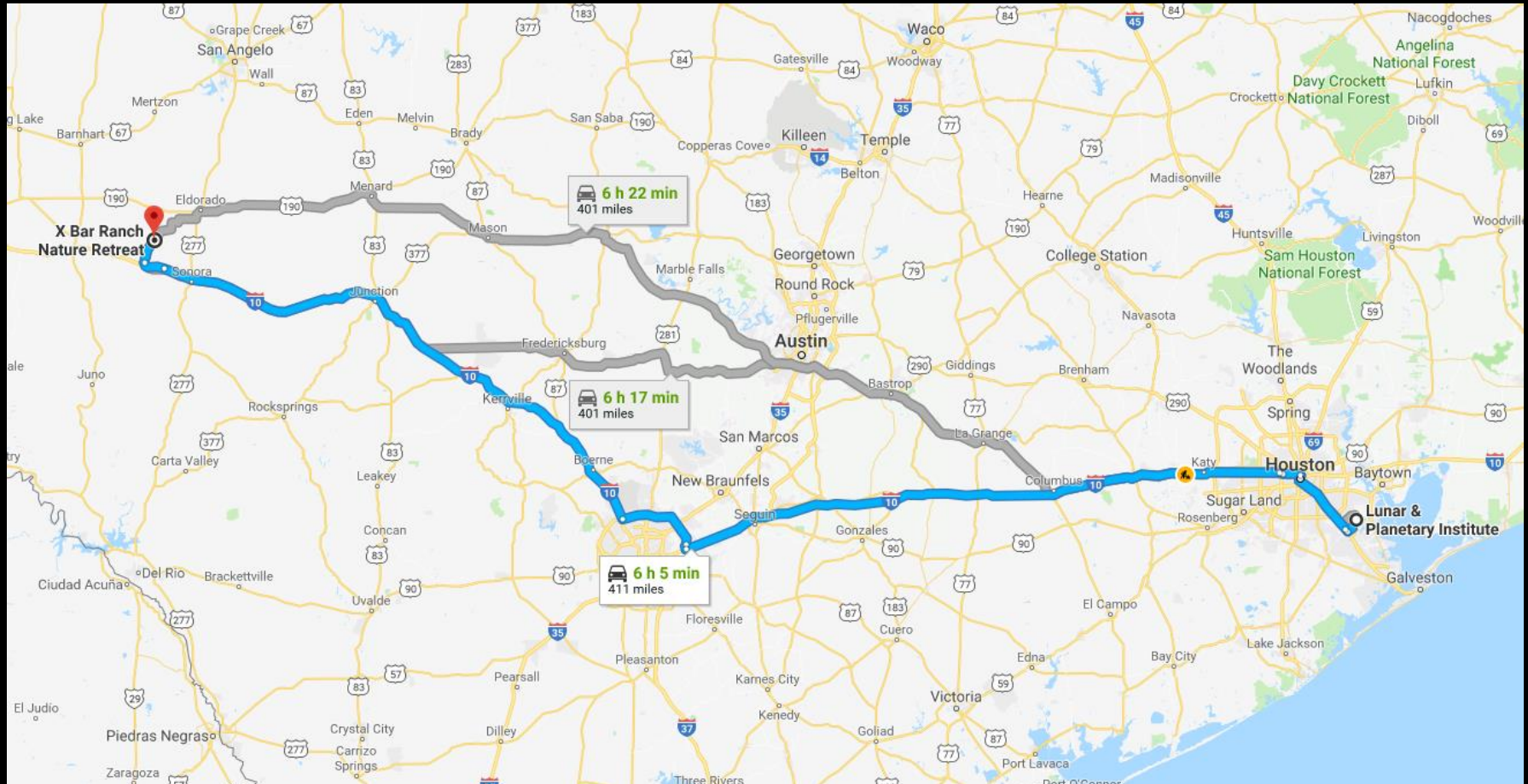
Oct. 16
To
Oct. 22

Eldorado
STAR PARTY

6 Nights:
Monday
To
Saturday

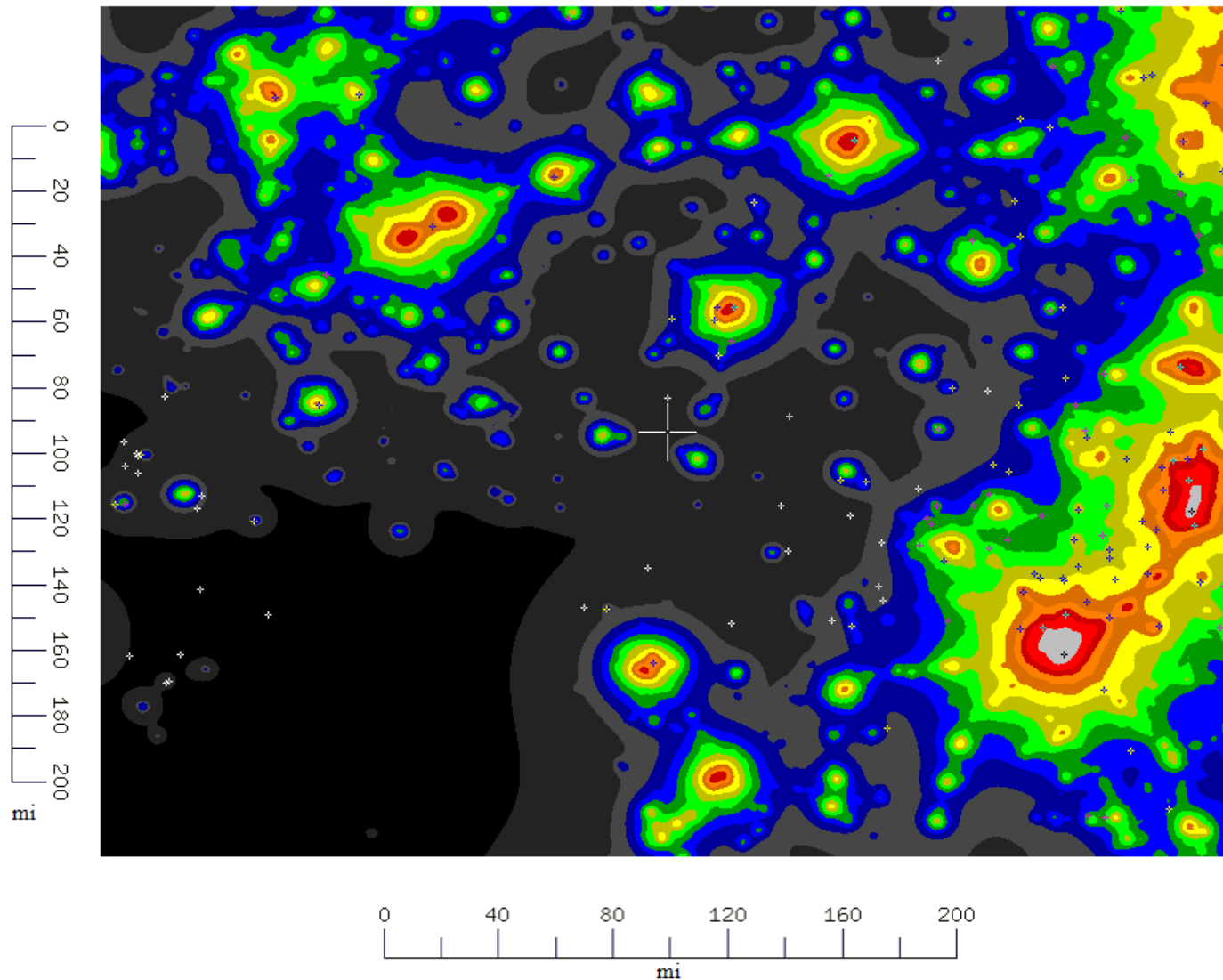
Where is the Eldorado Star Party?

Held at X-Bar Ranch



Approx. 6 hour drive

Why would we want to drive 6 hours?



Clear Sky Clock / Chart for ESP

Information:

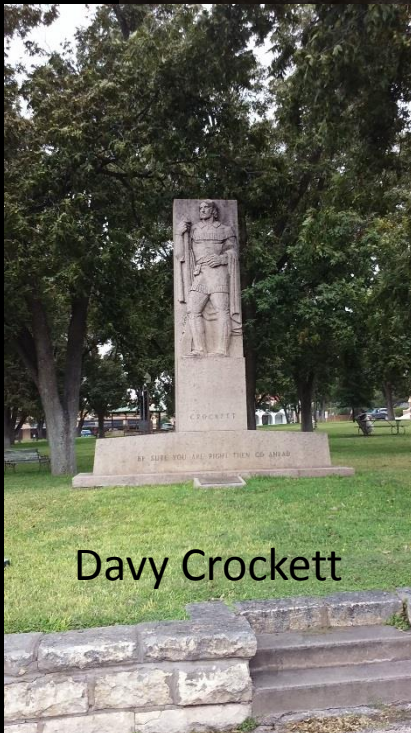
- ⇒ Hosted by X-Bar Ranch, Meador Family
- ⇒ Tent camp, RV, some rooms
- ⇒ Food provided, or bring your own
 - ⇒ Snack area at night (honor system)
 - ⇒ BBQ provided by ranch on last day
- ⇒ 137 attendees
- ⇒ Speakers
- ⇒ Hiking trails
- ⇒ Door prizes (including some high end items)
- ⇒ Things to do during the day
 - ⇒ Day trips to nearby towns

Things to do during the day

Hiking Trails: Thanksgiving Hill



Hanging around ranch



Davy Crockett

Historic destinations:
e.g. Ozona, TX



Caverns of
Sonora



Observing Field



Astrophotography at the Eldorado Star Party

Three Configurations



200mm, f/8
1600mm fl
Ritchey Chretien
CCD Camera
LRGB

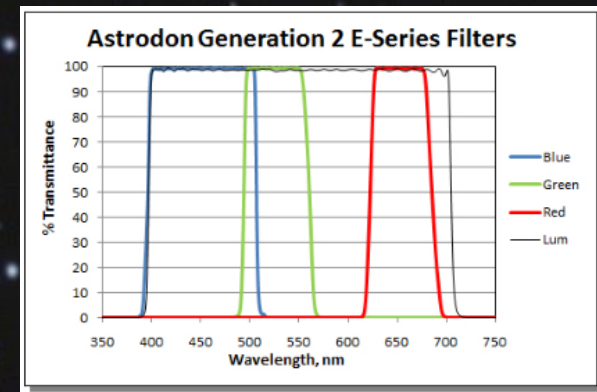


80mm, f/7.5
600mm fl
Refractor
CCD Camera
LRGB

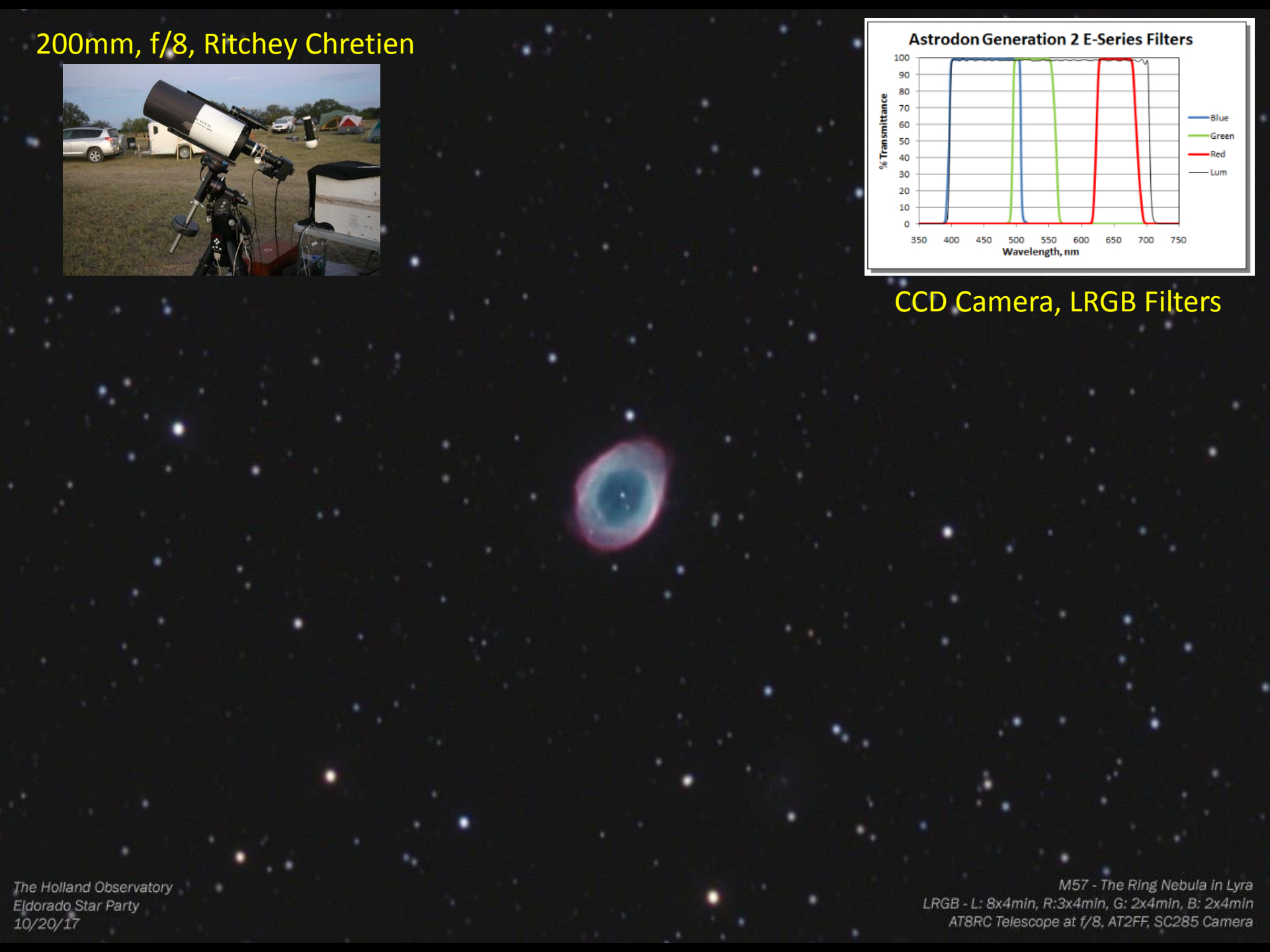


72mm, f/3.2, 200mm fl, Camera Lens, DSLR

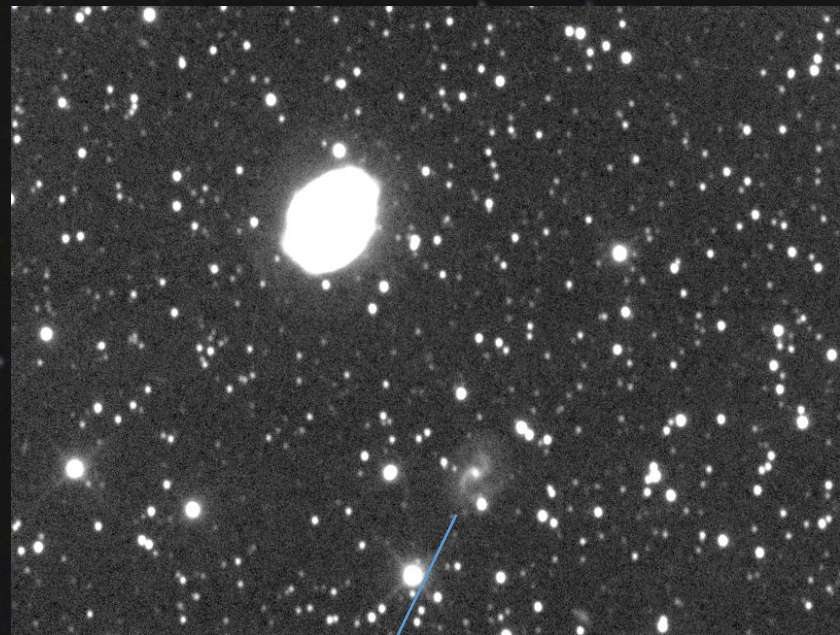
200mm, f/8, Ritchey Chretien



CCD Camera, LRGB Filters



Background
Galaxy





imgflip.com

Object moving through M74

New discovery? Or known object?

- Located at +16° Declination
 - Moving East / West
- => Could be an asteroid

How to find out if a known object:
Minor Planet Center webpage

Enter information:

RA: 01h 36m 42s, DEC: 15° 47' 00"

Date: 10/22/17; Time: 5:16 GMT

Speed: 28 pix x 0.82" / pix in 40 min => 34.5" / hr

| Object designation | R.A. | | | Decl. | V | Offsets | | Motion/hr | | Orbit | Further observations? Comment (Elong/Decl/V at date 1) |
|--------------------|------|----|------|-----------|------|---------|-------|-----------|-------|-------|---|
| | h | m | s | | | R.A. | Decl. | R.A. | Decl. | | |
| (32704) 2140 T-2 | 01 | 36 | 47.5 | +15 44 48 | 17.4 | 3.0W | 2.2S | 31- | 5- | 19o | None needed at this time. |
| (431073) 2006 CQ13 | 01 | 36 | 21.4 | +15 51 49 | 21.3 | 9.3W | 4.8N | 32- | 12- | 7o | None needed at this time. |
| (462615) 2009 OA12 | 01 | 36 | 45.0 | +15 36 46 | 21.5 | 3.6W | 10.2S | 33- | 18- | 7o | None needed at this time. |
| (66233) 1999 CC156 | 01 | 36 | 11.7 | +15 47 10 | 19.1 | 11.6W | 0.2N | 36- | 18- | 14o | None needed at this time. |
| (300232) 2006 YL5 | 01 | 36 | 12.2 | +15 50 17 | 19.5 | 11.5W | 3.3N | 28- | 11- | 9o | None needed at this time. |

2140 T-2 closest match

| | Measured | Actual |
|---------|-------------|---------------|
| RA: | 01h 36m 42s | 01h 36m 47.5s |
| DEC: | 15° 47' 00" | 15° 44' 48" |
| Motion: | 34.5" / hr | 31" / hr |

Minor Planets Discovered

| | |
|-------------|--------|
| THIS MONTH: | 9 |
| THIS YEAR: | 9 |
| ALL TIME: | 746412 |

80mm, f/7.5
600mm fl
Refractor
CCD Camera
LRGB



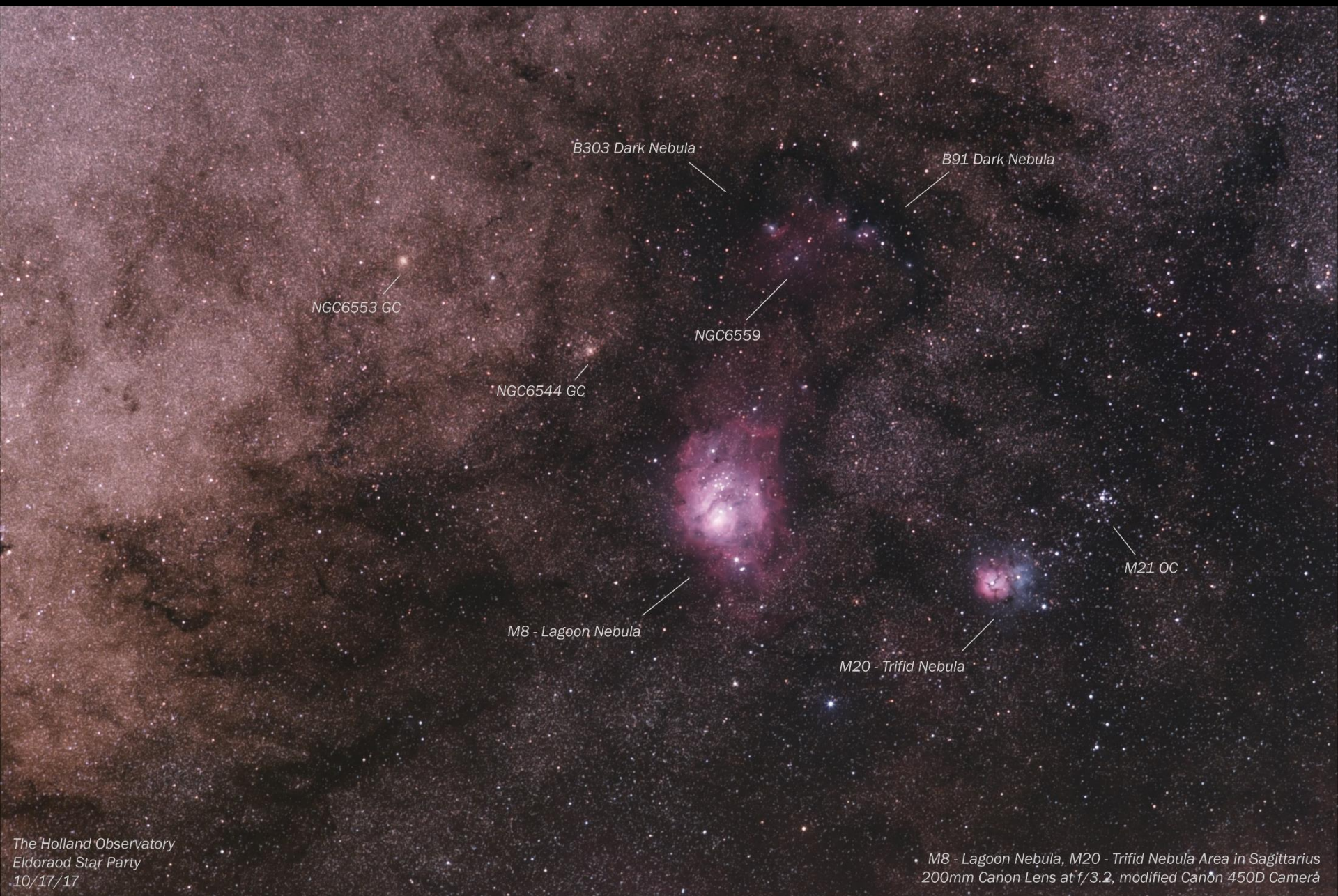


72mm, f/3.2, 200mm fl, Camera Lens, DSLR



The Holland Observatory
Eldoraod Star Party
10/17/17

M8 - Lagoon Nebula, M20 - Trifid Nebula Area in Sagittarius
200mm Canon Lens at f/3.2, modified Canon 450D Camera



B303 Dark Nebula

B91 Dark Nebula

NGC6553 GC

NGC6559

NGC6544 GC

M8 - Lagoon Nebula

M20 - Trifid Nebula

M21 OC





M18 OC

M17 - Swan Nebula

IC4706

M16 - Eagle Nebula

NGC6604

Comparison f/3.2 vs. f/7.5

M8 & M20 Area

f/3.2, ISO 400

Original unprocessed images

NGC6992

Both 4 minute exposures

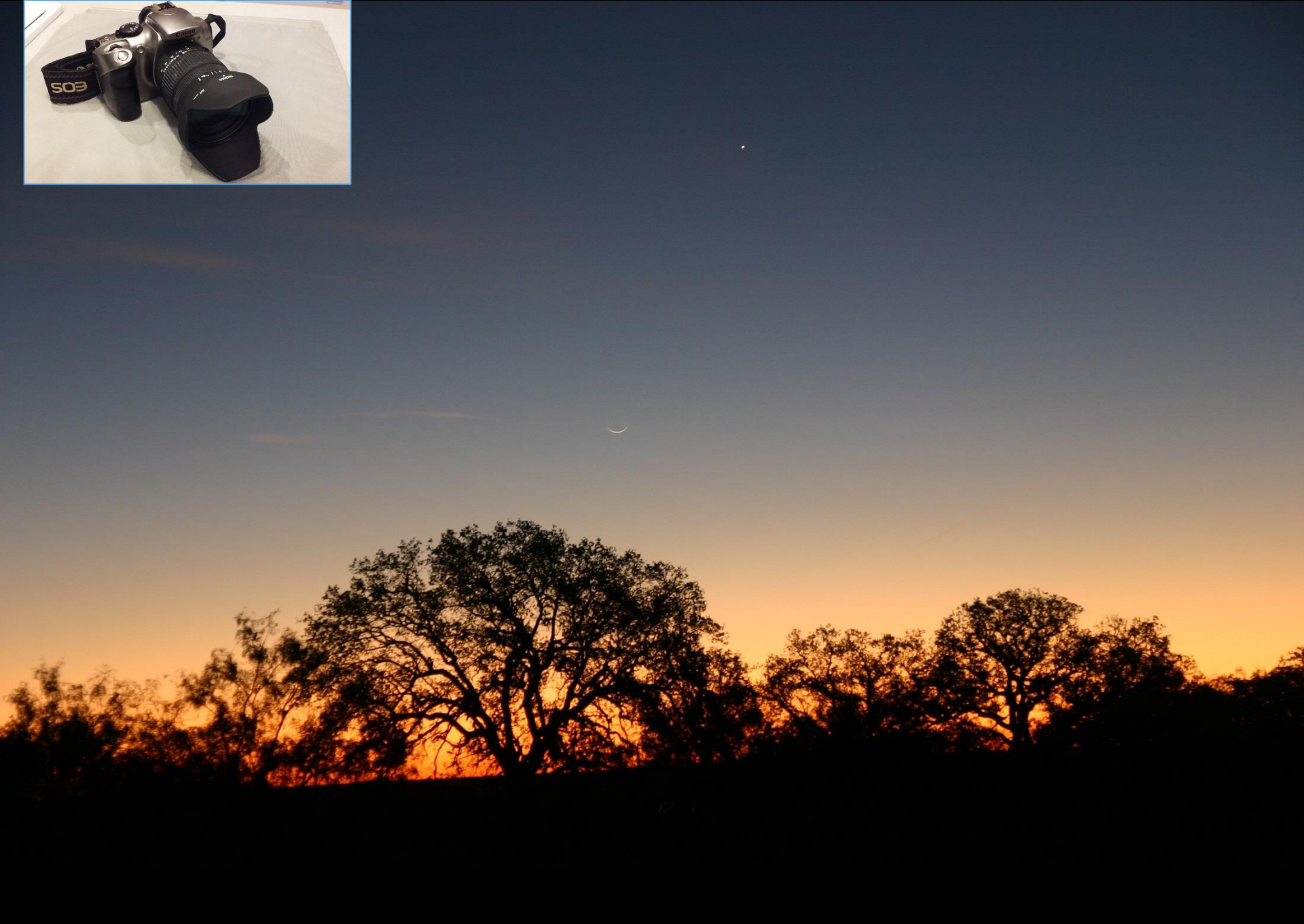
Focal ratio = focal length / aperture

f/7.5, Gain = 1

80mm, f/7.5, 600mm focal length Refractor
AT2FF field flattener, DSLR



17 – 70mm Sigma Lens, DSLR





The End