

ASTROPHOTOGRAPHY TARGETS

July-Aug 2018



Barry Fitzgerald
Messier 6
Butterfly Cluster
ES127 w/0.7 FR
July 2018

Beginner Targets List

- **July 16:** The Moon and Venus will make a close approach, passing within $1^{\circ}33'$ of each other. The Moon will be 3 days old. The pair will become visible at around 21:02 (EDT) as the dusk sky fades, 24° above your western horizon.
- **July 25:** The Moon and Saturn will share the same right ascension, with the Moon passing $1^{\circ}59'$ to the north of Saturn. The Moon will be 12 days old. The pair will be visible in the evening sky, becoming accessible at around 20:57 (EDT) as the dusk sky fades, 21° above your south-eastern horizon
- **July 27:** *Mars at opposition, brighter than Jupiter! It's a must see.* Mars will be well placed for observation, in the constellation Capricornus. It will be visible for much of the night, reaching its highest point in the sky at around midnight local time. It will be visible between 21:47 and 05:48. It will become visible at around 21:47, when it rises 7° above your south-eastern horizon, and then reach its highest point in the sky at 01:49, 30° above your southern horizon.
- **Aug 13:** The Perseid meteor shower will reach its maximum rate of activity on 13 August 2018. Some shooting stars associated with the shower are expected to be visible each night from 23 July to 20 August. The maximum rate of meteors expected to be visible is around 80 per hour. Take your camera out and put on tripod. Use widefield lens
- **All summer long:** Shoot the Milky Way. Best to get to a location where its dark. Fame over a lake or big pond for a cool reflection. Lake here at CE is a great option. Use wide field lens and tripod.

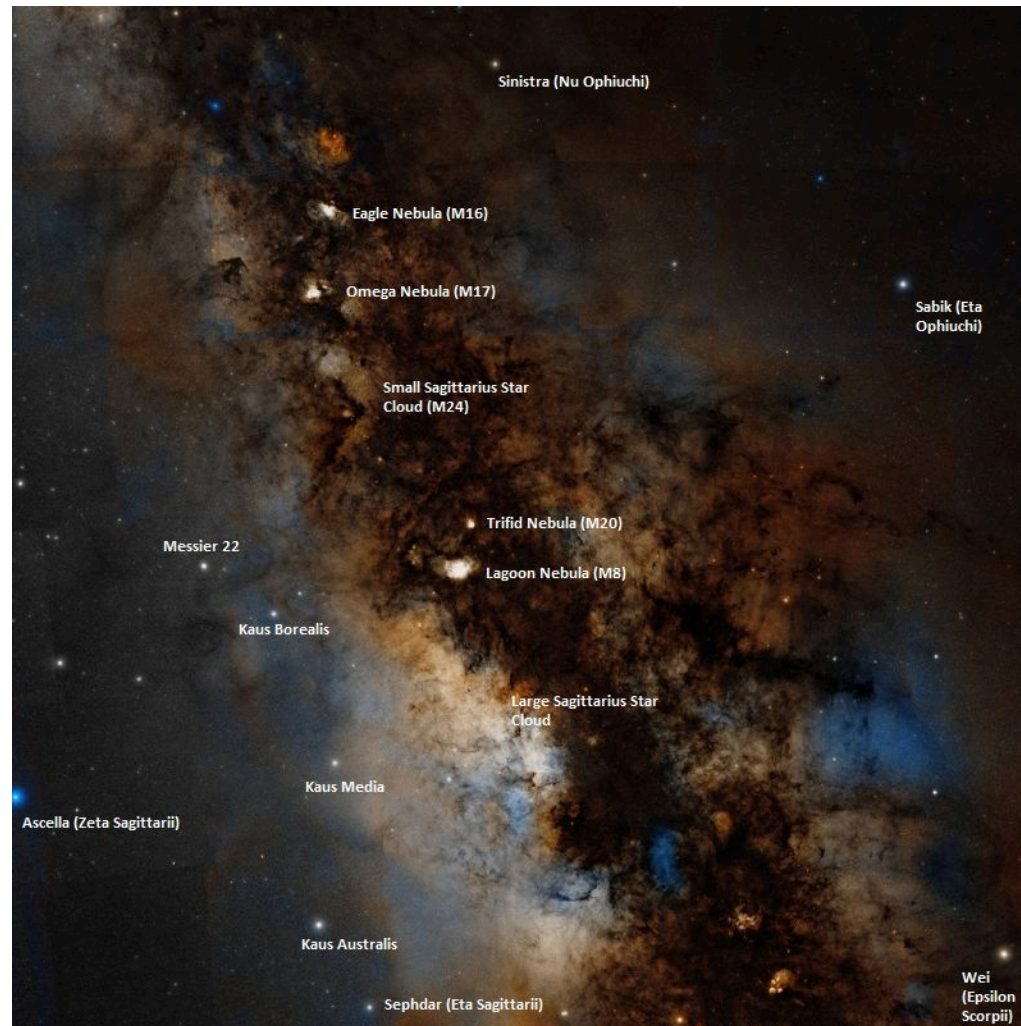
Intermediate Target Sagittarius Star Cloud



Sagittarius Star Cloud

- **Designation:** M 24
- **Constellation:** Sagittarius (aka The Teapot)
- **Coordinates:** 18h 16.9m , -18d 30'
- **Size:** 1.5 degrees (huge)
- **How to shoot:** Options for scope range from widefield dslr's (16mm to 150mm lens) to 80mm telescopes, to 1000mm+ scopes for more detailed areas. This portion of the sky contains beautiful starfields and gas regions suitable for widefield photography and deep space objects such as Omega, Eagle, Trifid, and Lagoon Nebula. Take your pick! You can spend the rest of the summer exploring this region.
- **Camera Equipment:** Single shot DLSR or RGB are all good choices. Shot up to 3 to 5 mins if mount and seeing allow. If you decide to focus on the individual nebulas check about using Ha or O3 for those items. Lastly your naked eyes or a nice pair of binoculars is a great way to explore this vast area! Take a brain picture. Nothing beats seeing this area directly with your eyes.

Sagittarius

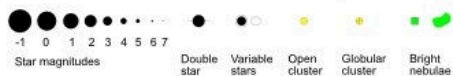
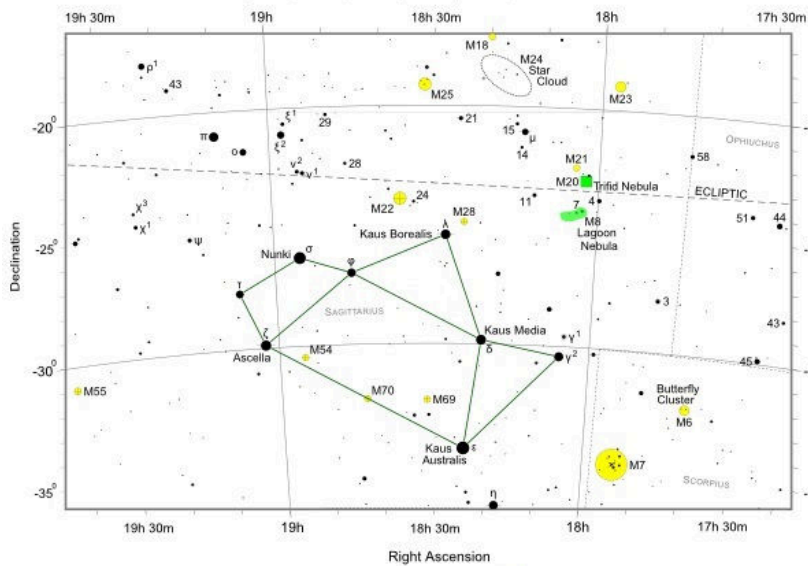


Object visible in Sagittarius

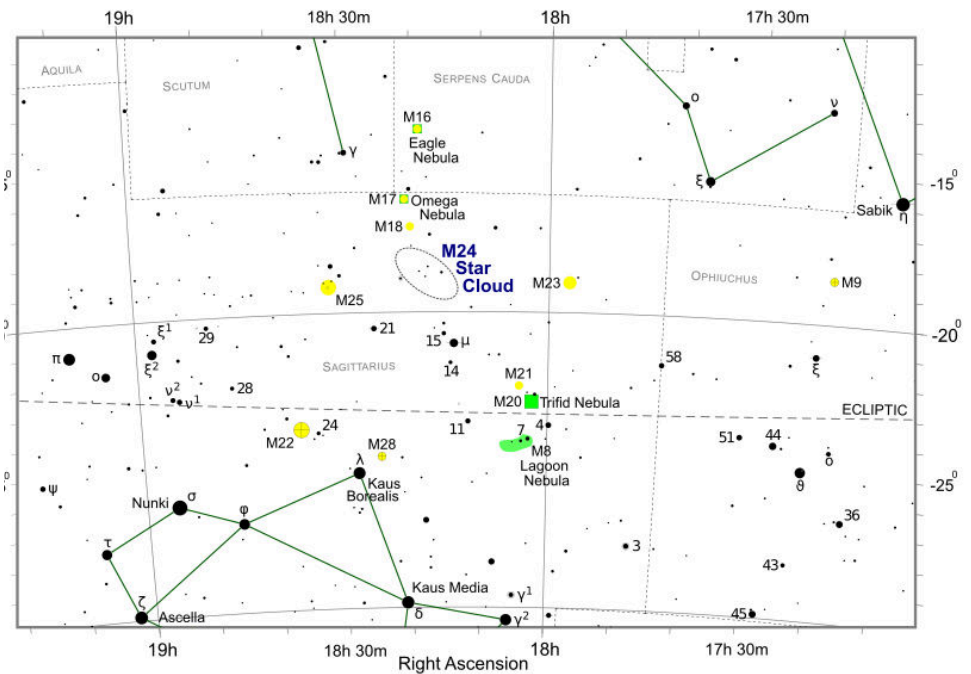
Sagittarius Star Chart

Messier Finder Chart for M8 Lagoon Nebula, M20 Trifid Nebula, M21, M22, M28, M54, M69, M70

Also shown M6 Butterfly Cluster, M7, M18, M23, M24 Star Cloud and M55



Messier 24 - M24 - The Sagittarius Star Cloud



Advanced Target

Pickering's Triangle

Part of NGC-6797



by Steve Cannistra

Scope: Takahashi FS-102 at f6 Camera: Maxcam CM10

Ha and O3 filters (This is an Ha:OIII:OIII image)

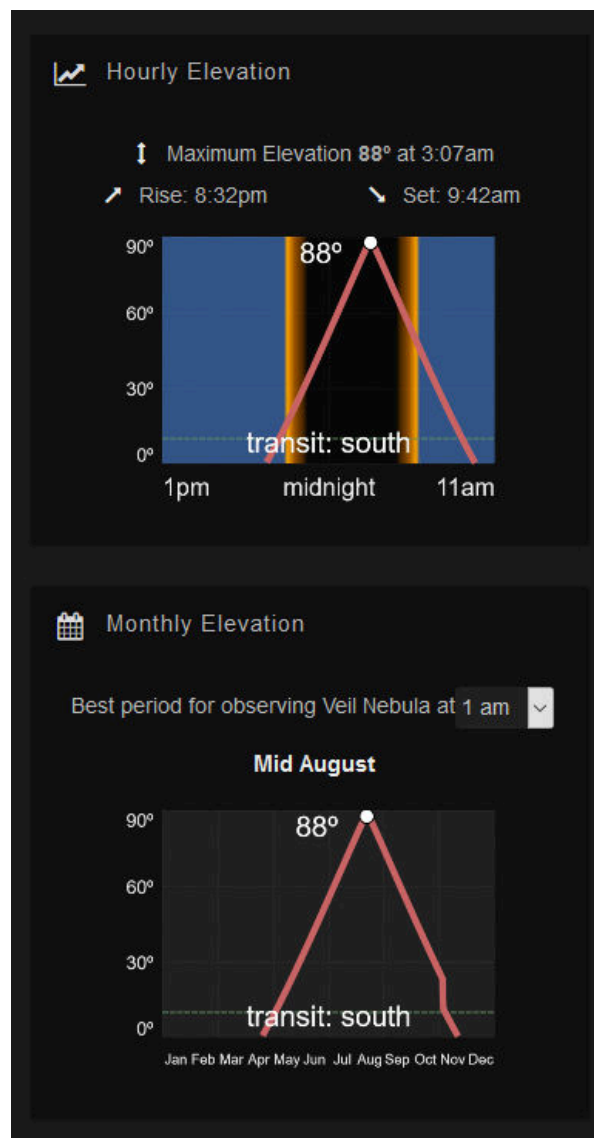
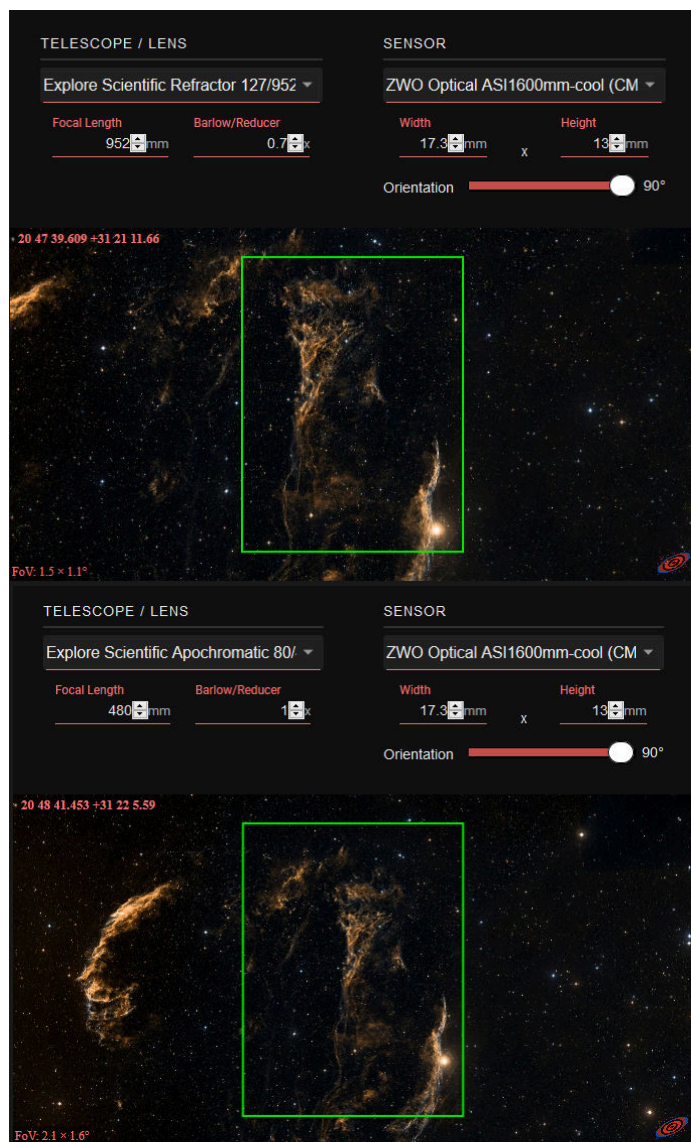
<http://www.starrywonders.com/pickeringcm10haoiii.html>

PICKERING'S TRIANGLE

- **Designation:** NGC-6979 (Veil Nebula)
- **Constellation:** Cygnus
- **Coordinates:** 20h 51m 10s , +32d 09m 53"
- **Size:** 70 arcmin
- **How to shoot:** This target is part of the Veil Nebula. Use low to medium power telescope (up to 1000mm). Can go wider field to get more of the Veil Nebula. Area of interest is a triangle portion of Veil.
- **Camera Equipment:** Single shot DLSR, RGB or Narrowband are all good choices. Shot up to 3 to 5 mins if mount and seeing allow. Narrowband filters would include Ha and O3. If narrowband, map Ha to red and O3 to green and blue channels. Ha and O3 frames will require longer times or more frames than RGB, up to 2x as long.

Observing Data

<https://dso-browser.com>



Software and Data Sources

- **Astrophotography planning:** *DSO Browser* - <https://dso-browser.com/>
- **Field of View Calculators for different equipment:** *New Astronomy Press CCD Calculator* - http://www.newastro.com/book_new/camera_app.html
- **Planetarium Software:** *Stellarium* - <http://www.stellarium.org/>
- **Weekly sky events:** *Skyweek App* - [Google play](#)
- **Monthly and weekly sky events:**
 - <http://www.skyandtelescope.com/observing/sky-at-a-glance/>
 - <http://www.skymaps.com/downloads.html>
- **Book:** *The 100 Best Astrophotography Targets* by Ruben Kier
- **Observing Data :** *dso-browser.com*