



Howard Astronomical League Monthly Meeting

April 18th, 2024

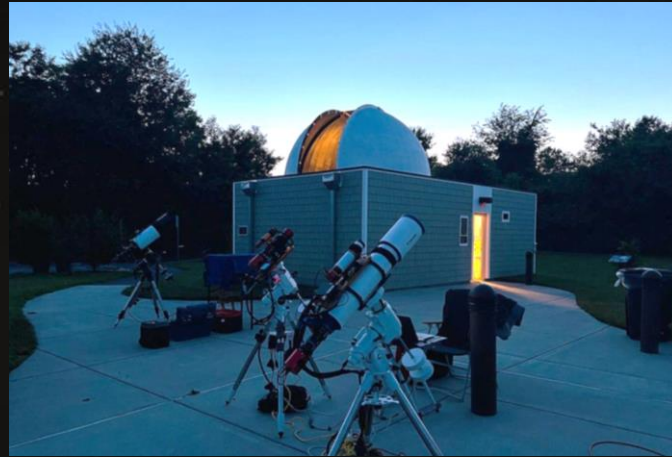
Tonight's Agenda, April 18th, 2024

- ⇒ • Introductions
- Announcements
 - 2024 Schedule of Star Parties
 - Eclipse Coverage/Next Month – **Jim Johnson**
 - Book of the Month – **Krystal Rolon**
- Featured speaker – **Dr. Richard G. Cosentino, Staff Scientist at STScI**
- What's Out in the Sky This Month...
 - Shallow Sky – **Jim Tomney**
- Members' Astro-Images and Sketches
- Wrap-up & Discussion

HAL Star Parties...

HAL's 2024 Scheduled Star Parties

Month	Date	Invitees
March	09	Members
March	16	Public
April	06	Members
April	13	Public
May	04	Members
May	18	Public
June	08	Members
June	15	Public
July	06	Members
July	13	Public
August	03	Members
August	10	Public
September	07	Members
September	14	Public
October	05	Members
October	26	Public
November	02	Members
November	09	Public



Upcoming Events

- NEAF (neafexpo.com)
 - April 20-21
 - Rockland Community College, Suffern, NY
- Meteor Showers
 - Lyrids – Peak April 22, early hours (near full moon)
 - Eta Aquarids – Peak May 5th, early hours (waxing crescent)

April 13th Public Star Party

Approx 25 HAL members set up their scopes, smart-scopes & binoculars & we estimated around 120 visitors



April 8th Eclipse Impromptu Star Party at Alpha Ridge Park

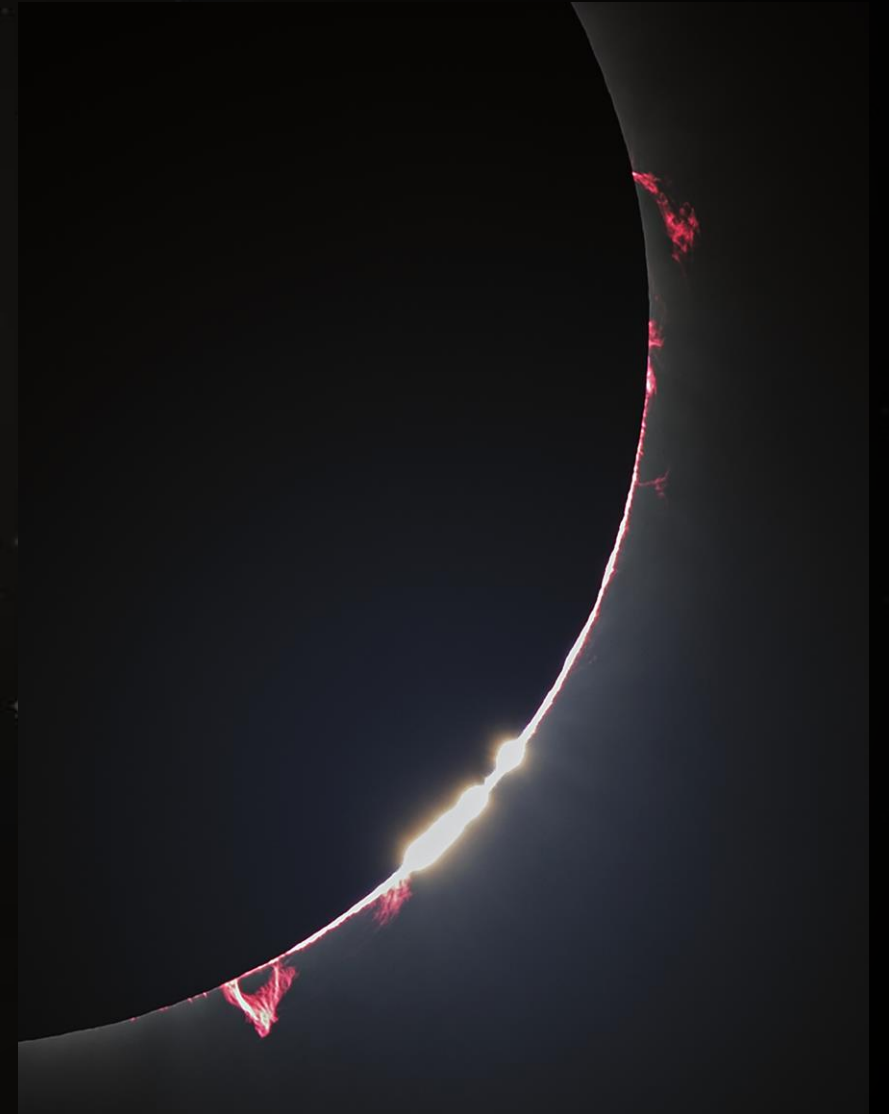
- Unplanned event, Upwards of 50 visitors*
- Handed out numerous pairs of eclipse glasses (good that we had some left over from 2017)
- Had the Ilig Scope displaying a live (white light) sun image within HALO throughout the eclipse

* One group said they came to Alpha Ridge because they had previously seen the HALO dome



Next Month's HAL Meeting, Thursday May 16th

- Special Meeting Hosted by Jim Johnson Covering HAL's Collective Eclipse Experience



Book of the Month

Title:

- The Grand Tour: A Traveler's Guide To The Solar System

Author:

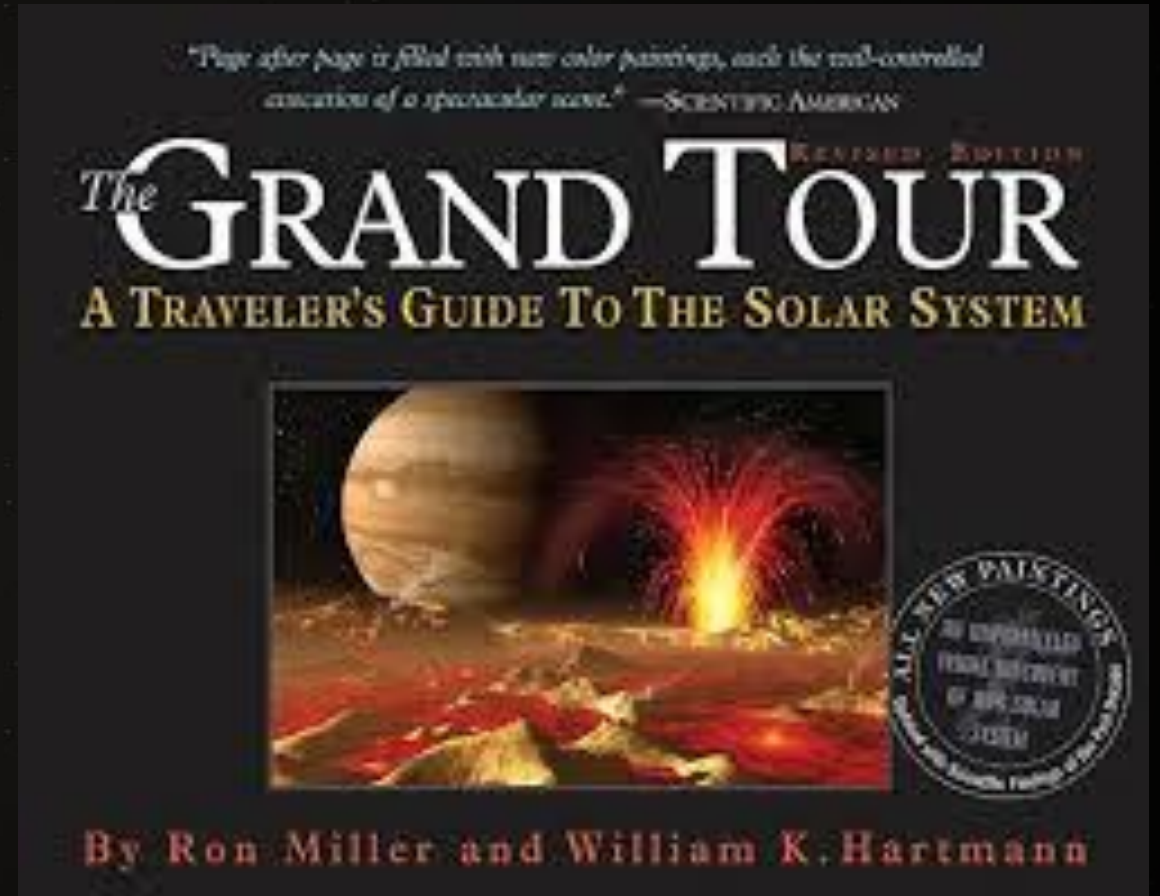
- Ron Miller and William K. Hartmann

Length:

- 305 pages

Audience Level:

- Beginner Friendly
- Intermediate
- Advance/Experienced



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Dr. Richard G. Cosentino, Staff Scientist at the Space Telescope Science Institute:

Topic: Weather in the Outer Solar System is Cloudy and Stormy

Richard (Rick) Cosentino

Richard Cosentino has undergraduate degrees from SUNY, Buffalo in Electrical Engineering and Engineering Physics, a degree in astronomy from CU, Boulder and his PhD in Physics from the New Mexico Institute of Mining and Technology. His PhD focused on modeling jet streams in Jupiter's atmosphere. He later moved to NASA Goddard for post-doctoral work, continuing to study Jupiter's atmosphere, including the Great Red Spot and smaller spots and storms. He has also worked on the OSIRIS-REx mission as an instrument scientist for a spectrometer which aided in finding the sample site for asteroid Bennu. He is now working in the instrument division at STScI on the Nancy Grace Roman Space Telescope and the calibration reference file pipeline.

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Shallow Sky Highlights for Apr-May 2024

- *Lyrid Meteor Shower* happens on the night of April 21st but competes with a full Moon. It's known for fireballs, so you might get lucky and catch one if you decide to observe
- *All the other planets* are, in general, are not far from the Sun and not favorable for viewing.
- *Stay on alert* for the anticipated explosion of T Coronae Borealis [T CrB] at any time.

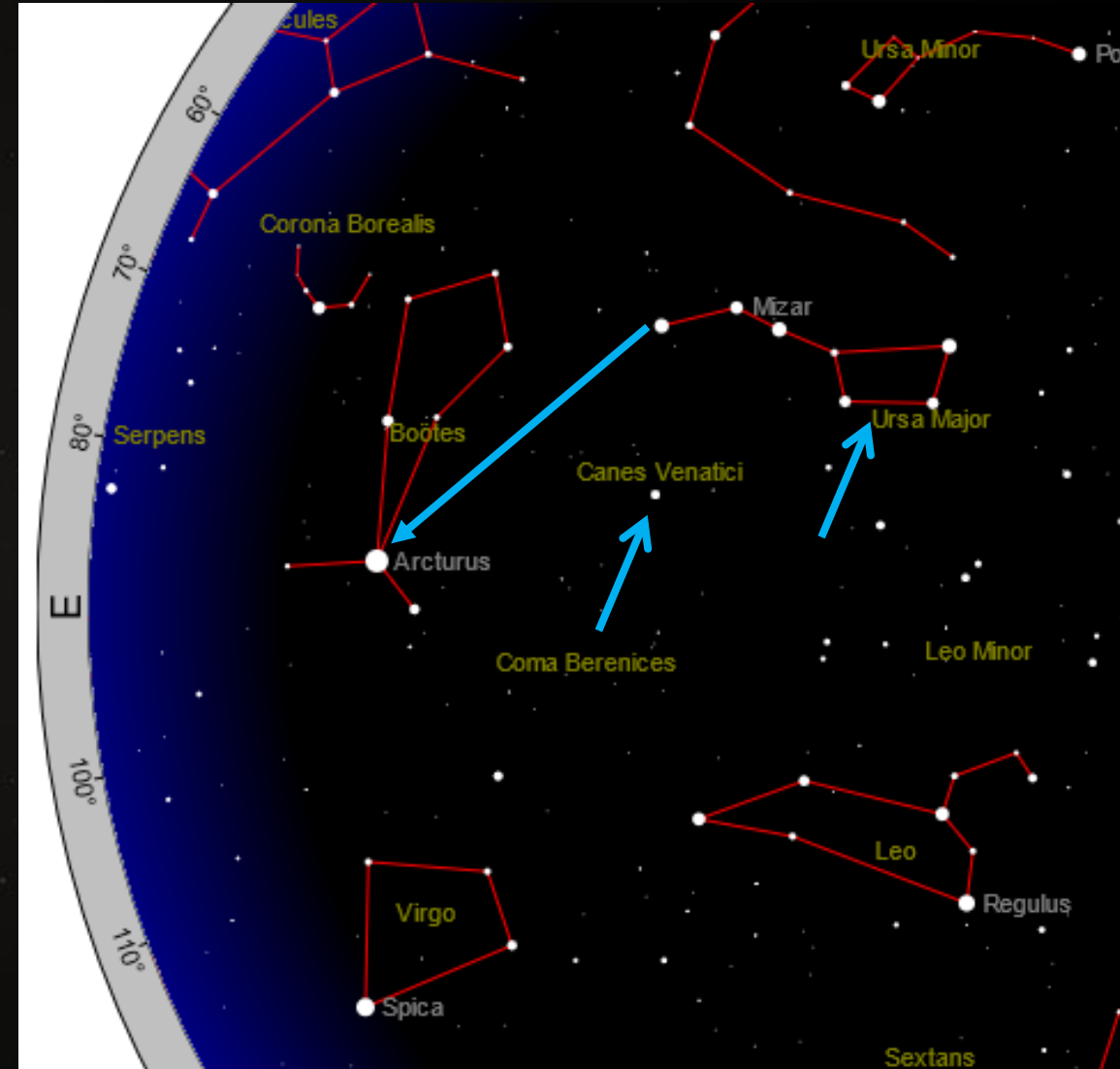
Beginner's Exploration: M3

- A great early spring object is the globular cluster M3
 - “M” stands for Messier – a catalog of some of the brightest “deep space” objects that Charles Messier mistook for comets
- A globular cluster is a large group of very old stars that are closely packed into a symmetrical ball of stars. They are the largest and most massive star clusters.
- M3 is about 500,000 stars in a ball roughly 180 light years wide. It lies some 34 thousand light years away.



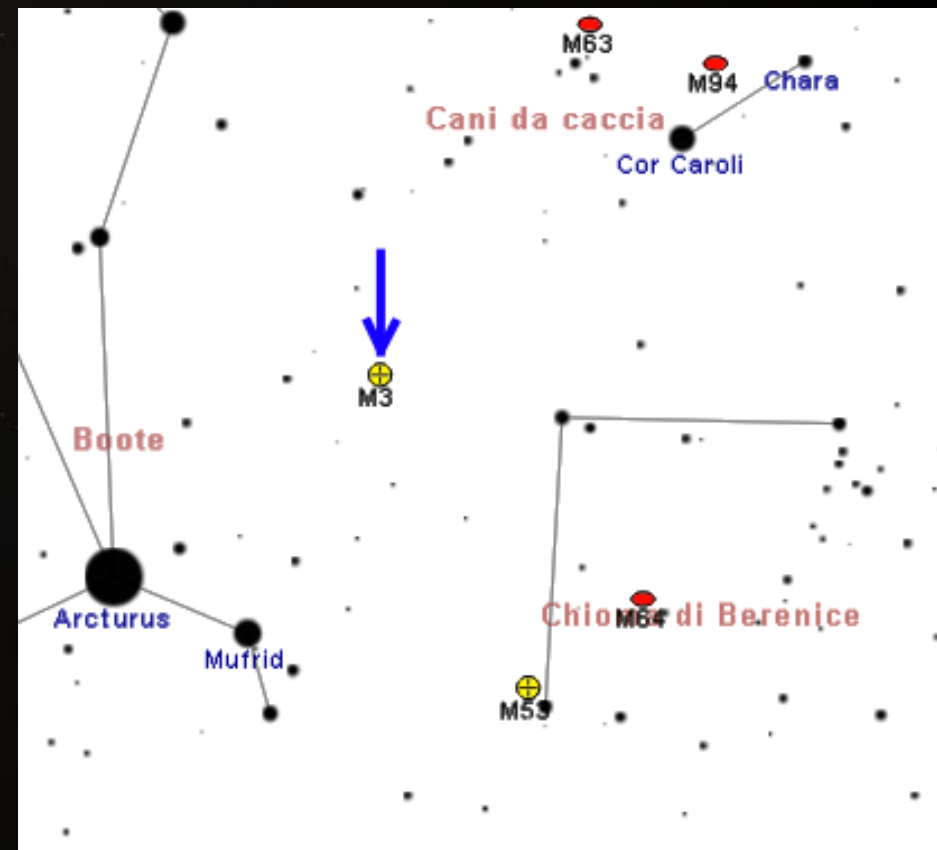
Orientation

- The first step in finding an object by *star-hopping* is to find important celestial markers in the sky.
 - Stepping outside, face Northeast and look up. You should see the Big Dipper (a.k.a. Ursa Major)
 - Follow the curve of the handle out to a bright orange star. That's Arcturus in the constellation Boötes.
 - Finally, under the handle of the dipper in the region between it and Boötes find a star (Cor Caroli), the brightest star of the tiny constellation Canes Venatici.

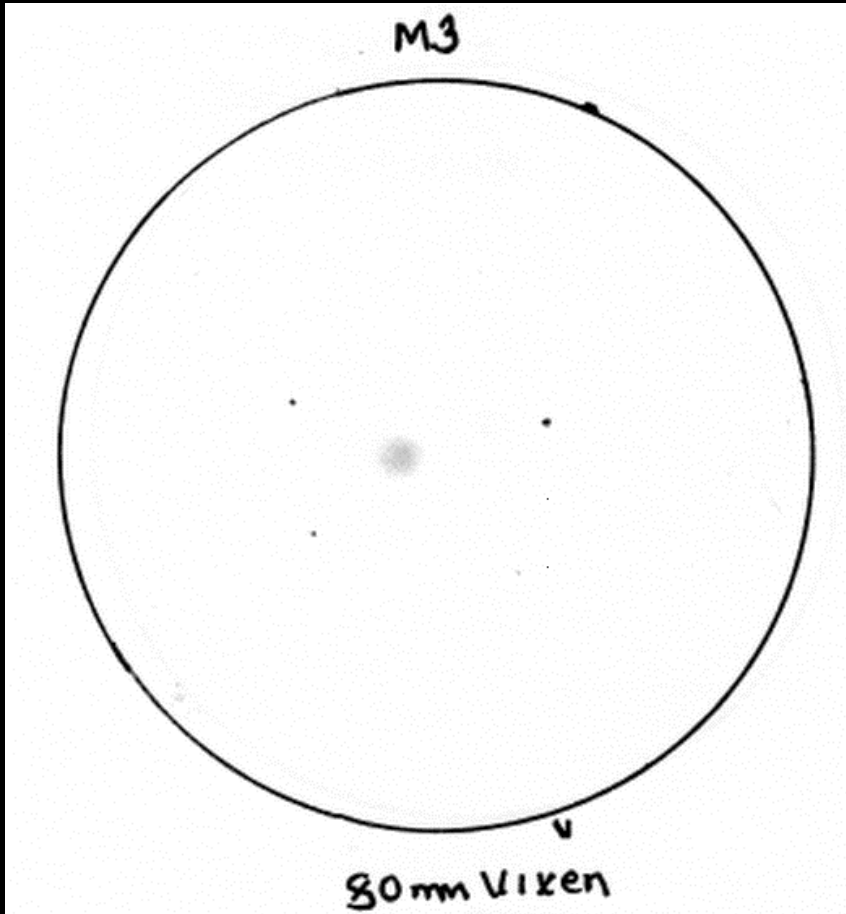


Observation

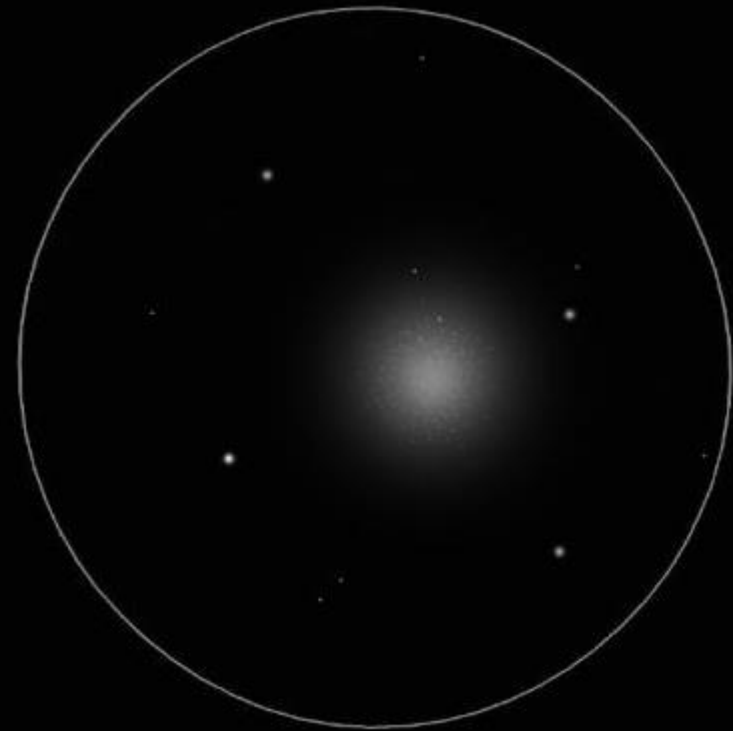
- Now that you are oriented, take a pair of binoculars and sweep the area midway between Arcturus and Cor Caroli. You should come across a tiny, fuzzy glow – M3!
- In a small scope you'll see a round glow that is not uniform, being brighter in the center.
- In a larger telescope (6" and up) you'll begin to actually see some of these stars scattered across the face of the orb, especially if you use averted vision.



- The appearance will be impacted by how dark your skies are and how large the telescope (or binoculars) are.



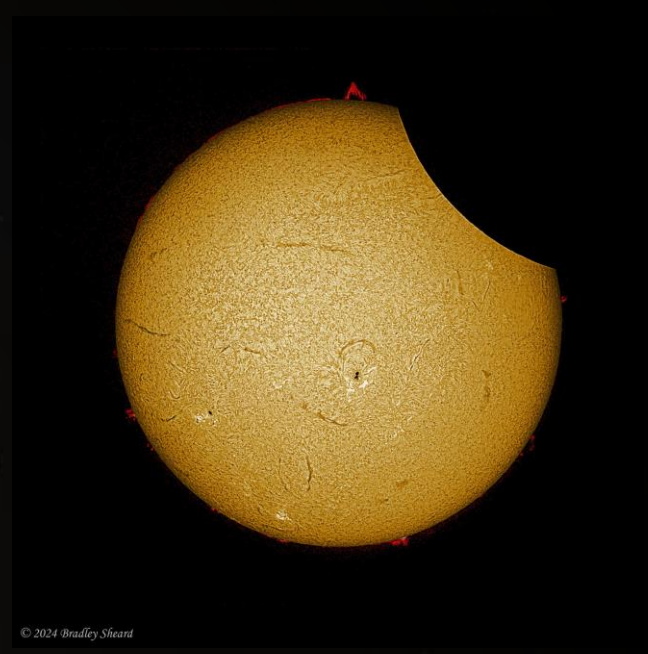
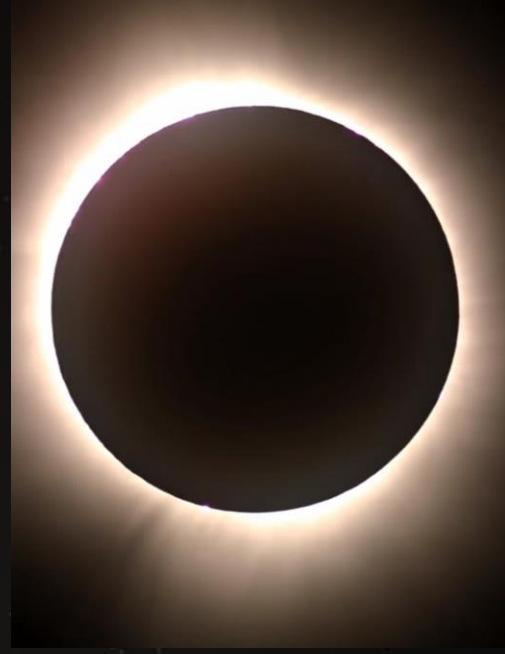
Jim Tomney – 80mm Refractor



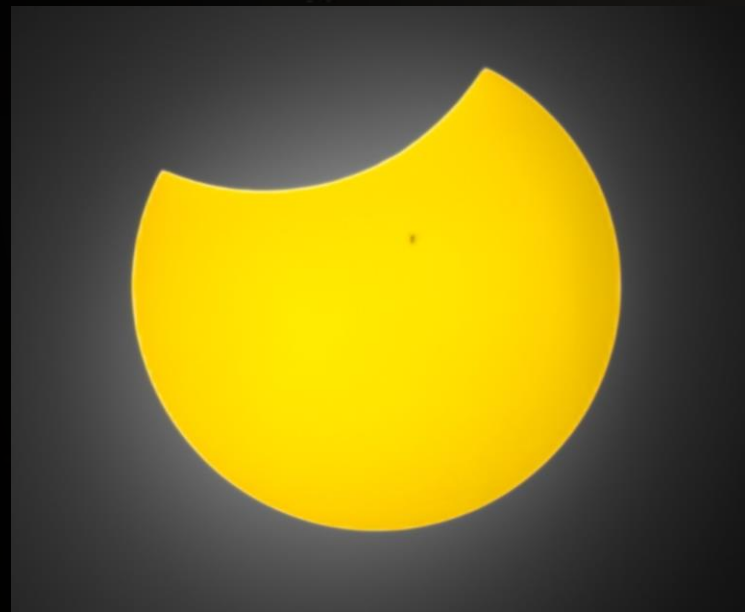
Richard Orr – 155mm Refractor

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James, Willingham, Joe Novotka, Ian Slepian, Brad Sheard, Jose Urias, Lee Amoss, John Nagy, David Illig



OOTM: IC 443
JellyFish Nebula

Bennie Palmer



© DoubleStar Photography

Lee Amoss



The Waxing Gibbous Moon
Harrini Meenashi Sundar
Public Star Party, April 13, 2024, Alpha Ridge Park
Celestron 114LCM telescope, iphone 13







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