



Howard Astronomical League Monthly Meeting

May 18, 2023

Tonight's Agenda, May 18, 2023

- ⇒ • Introductions
- Announcements
 - Star Parties
 - Astro-school Updates – **Phil Whitebloom**
 - Book of the month – **Krystal Rolon**
- Featured speaker - **Glen Nagle, Science Communicator, Canberra Deep Space Communication Complex**
- What's Out in the Sky This Month...
 - Solar – **Phil Whitebloom**
 - Shallow Sky – **Jim Tomney**
- Members' Astro-Images and Sketches
- Wrap-up & Discussion

Tonight's Agenda, May 18, 2023

- Introductions
- ⇒ • Announcements
 - Star Parties
 - Astro-school Updates – **Phil Whitebloom**
 - Book of the month – **Krystal Rolon**
- Featured speaker - **Glen Nagle, Science Communicator, Canberra Deep Space Communication Complex**
- What's Out in the Sky This Month...
 - Solar – **Phil Whitebloom**
 - Shallow Sky – **Jim Tomney**
- Members' Astro-Images and Sketches
- Wrap-up & Discussion

Star Parties...

HAL's 2023 Scheduled Star Parties

Month	Date	Invitees
March	18	Members
March	25	Public
April	15	Members
April	22	Public
May	20	Members
May	27	Public
June	17	Members
June	24	Public
July	15	Members
July	22	Public
August	12	Members
August	26	Public
September	9	Members
September	23	Public
October	14	Members
October	21	Public
November	04	Members
November	11	Public



Regional 2023 Star Parties

Name	Location	Typical Date
Texas Star Party	Fort Davis, TX	May
Michiana Star Party	Vandalia, MI	May
Bootleg Spring Star Party	Harmon, IL	June
Bryce Canyon Astronomy Festival	Bryce Canyon National Park, UT	June
Cherry Springs Star Party	Coudersport, PA	June
Grand Canyon Star Party	Grand Canyon, AZ	June
Rocky Mountain Star Stare	Gardner, CO	June
Wisconsin Observers Weekend	Hartman Creek State Park, WI	June
Gateway to the Universe Star Party	Marten River Provincial Park, ON	July
York County Star Party	York, PA	July
Maine Astronomy Retreat	Washington, ME	July/Aug
Stellafane Convention	Springfield, VT	Aug
Almost Heaven Star Party	Spruce Knob, WV	Aug
Acadia Night Sky Festival	Bar Harbor, ME	Sept
Black Forest Star Party	Coudersport, PA	Sept
AstroAssembly	North Scituate, RI	Sept
Hidden Hollow Star Party	Mansfield, OH	Sept
Enchanted Skies Star Party	Socorro, NM	Oct
NOVAC Stargaze	C. M. Crockett Park, VA	Oct

Astro School



A School in Our Galaxy Where You Choose the Topics*

Astro-School (May 18, 2023) **Saturn and it's Rings** A Bob Savoy Production

Campus Locations

HALO



Robinson Nature Center



It was Awesome!

* Email Philwhitebloom@yahoo.com with requests or suggestions

Book of the Month

Title:

- TO MARS WITH LOVE

Author:

- PATRICIA ANN STRAAT

Length: 285 pages

Audience Level:

- Beginner Friendly
- Intermediate
- Advance/Experienced

TO MARS WITH LOVE



PATRICIA ANN STRAAT

Tonight's Agenda, May 18, 2023

- Introductions
- Announcements
 - Star Parties
 - Astro-school Updates – **Phil Whitebloom**
 - Book of the month – **Krystal Rolon**
- ⇒ • Featured speaker - **Glen Nagle, Science Communicator, Canberra Deep Space Communication Complex**
- What's Out in the Sky This Month...
 - Solar – **Phil Whitebloom**
 - Shallow Sky – **Jim Tomney**
- Members' Astro-Images and Sketches
- Wrap-up & Discussion

Tonight's Agenda, May 18, 2023

- Introductions
- Announcements
 - Star Parties
 - Astro-school Updates – **Phil Whitebloom**
 - Book of the month – **Krystal Rolon**
- Featured speaker - **Glen Nagle, Science Communicator, Canberra Deep Space Communication Complex**
- ⇒ • What's Out in the Sky This Month...
 - Solar – **Phil Whitebloom**
 - Shallow Sky – **Jim Tomney**
- Members' Astro-Images and Sketches
- Wrap-up & Discussion

Solar Cycle 25 is a HOT Story



NASA (.gov)

<https://blogs.nasa.gov/solarcycle25> › 2023/03/29 › s... ⋮

Strong Solar Flare Erupts from Sun

Mar 29, 2023 — **The Sun emitted a strong solar flare, peaking at 10:33 p.m. ET on March 28, 2023.** NASA's Solar Dynamics Observatory, which watches the Sun ...



Business Insider

<https://www.businessinsider.com> › Science › News ⋮

'X-Class' Solar Flare Blasts Earth, More Sun Activity in ...

Mar 30, 2023 — Tuesday's eruption was the seventh X-class **solar flare** so far this year, suggesting **solar activity** in **2023** will far surpass 2022, which saw ...



Hindustan Times

<https://tech.hindustantimes.com> › tech › news › most-s... ⋮

WORST solar storm of 2023 just struck Earth

Apr 25, 2023 — **On April 23**, the most powerful solar storm of the year 2023 struck the Earth, covering a massive region of Europe, most of the USA and China.



Syfy

<https://www.syfy.com> › syfy-wire › earth-hit-by-two-... ⋮

The Earth just got hit with two powerful solar flares and ...

Apr 23, 2023 — Consequently, we can expect an increase in **solar flares** and other **solar activity** over the next couple of years. The good news is, it's unlikely ...



Business Insider

<https://www.businessinsider.com> › Science ⋮

Sun Is Getting More Active, Could Send Grid-Disrupting ...

Mar 24, 2023 — A 2023 study looking at flight records over 22 years found that planes were **21% more likely to be delayed by at least 30 minutes** when the sun ...



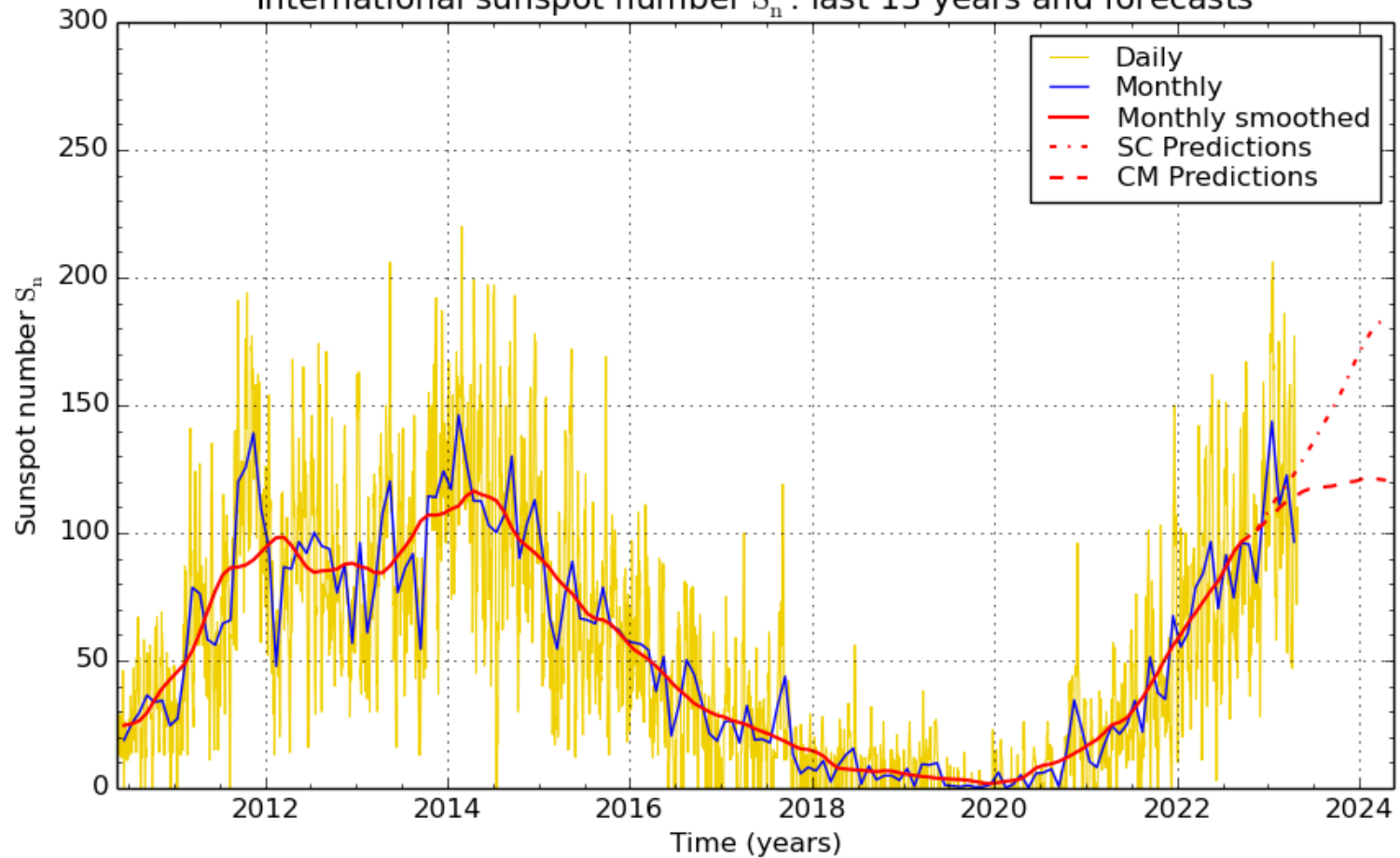
Popular Science

<https://www.popsci.com> › ... › Space › Solar System ⋮

Hold onto your satellites: The sun is about to get a lot stormier

Feb 27, 2023 — The **solar** maximum, or peak of **the sun's** electromagnetic **activity**, falls in 2025. Here's what that means for the space weather forecast.

International sunspot number S_n : last 13 years and forecasts



Major Solar Flare

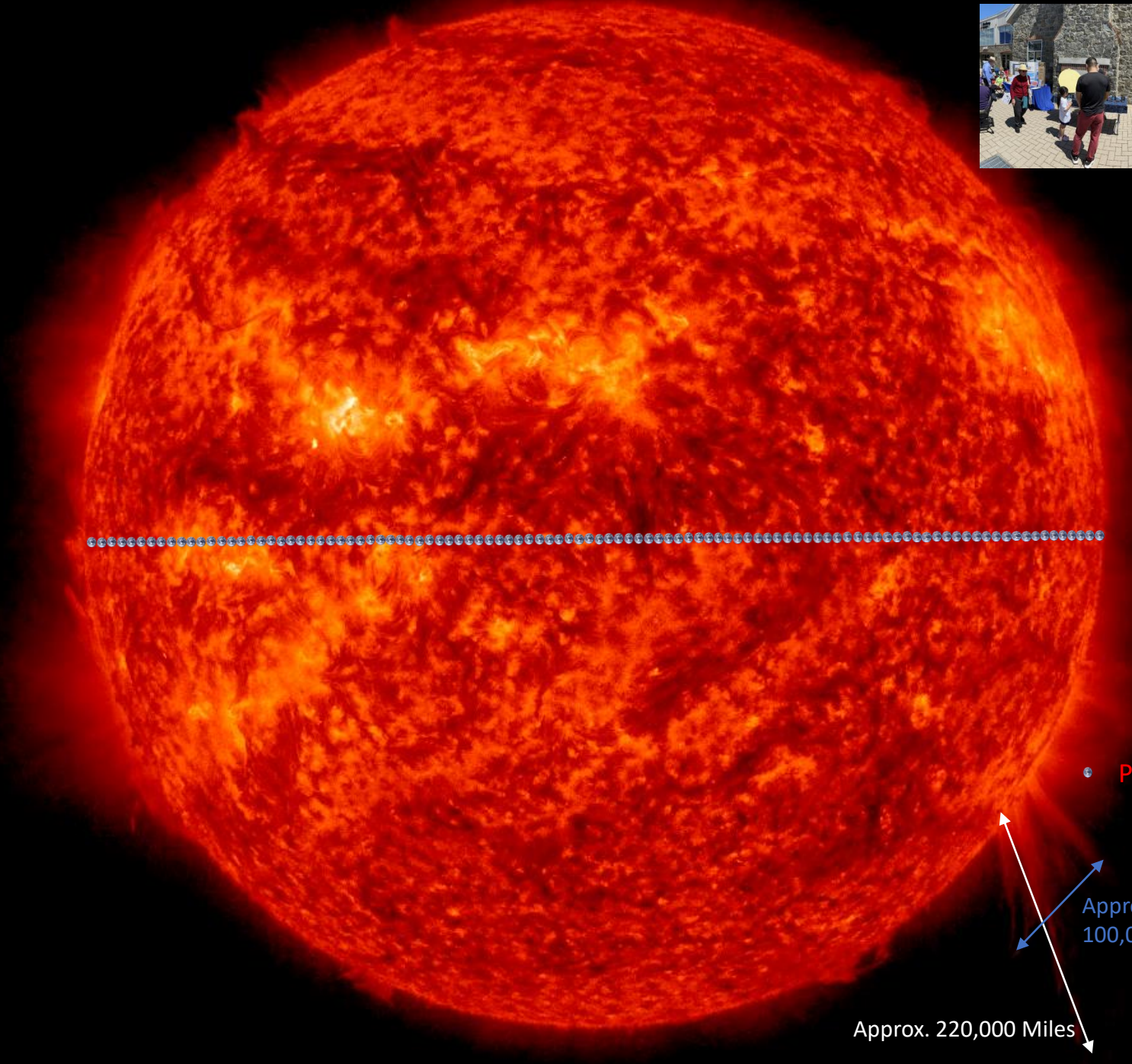
Our Sun
May 6, 2023
11:27:43 EDT

Total Duration
2 hours

Solar Image by:



SDO | Solar Dynamics Observatory



110 Earths

Perspective

Approx. 100,000 Miles

Approx. 220,000 Miles



Earth Day – Rain Date
Clarksville Commons
Clarksville, MD

“We saw this event happening live!”

Graphics by Phil Whitebloom

Major Solar Flare

Our Sun

May 6, 2023

11:27:43 EDT

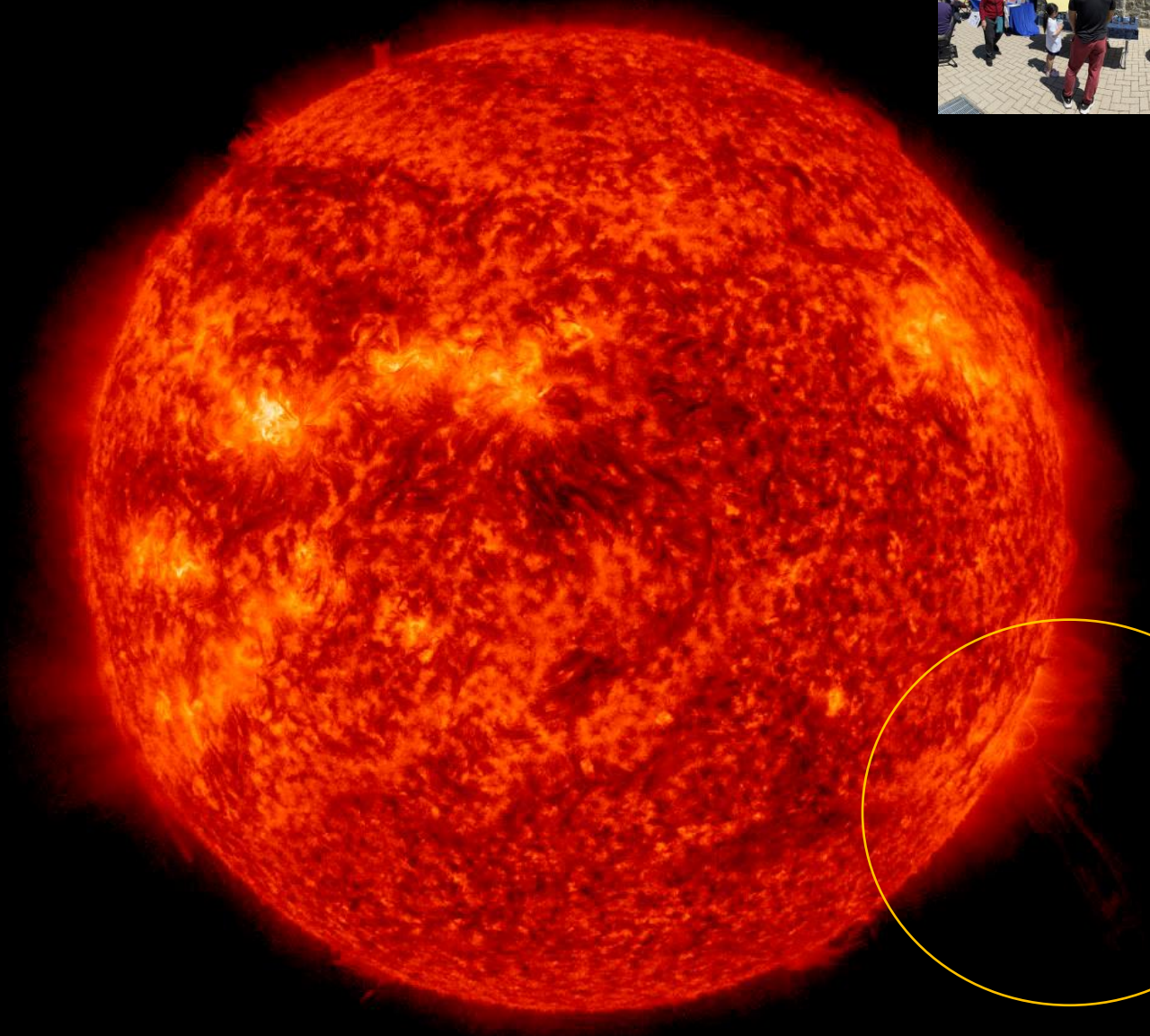
Total Duration
2 hours

Solar Video
by:



SDO | Solar Dynamics
Observatory

SDO/AIA 304 2023-05-06 00:09:06 UT



Earth Day – Rain Date
Clarksville Commons
Clarksville, MD

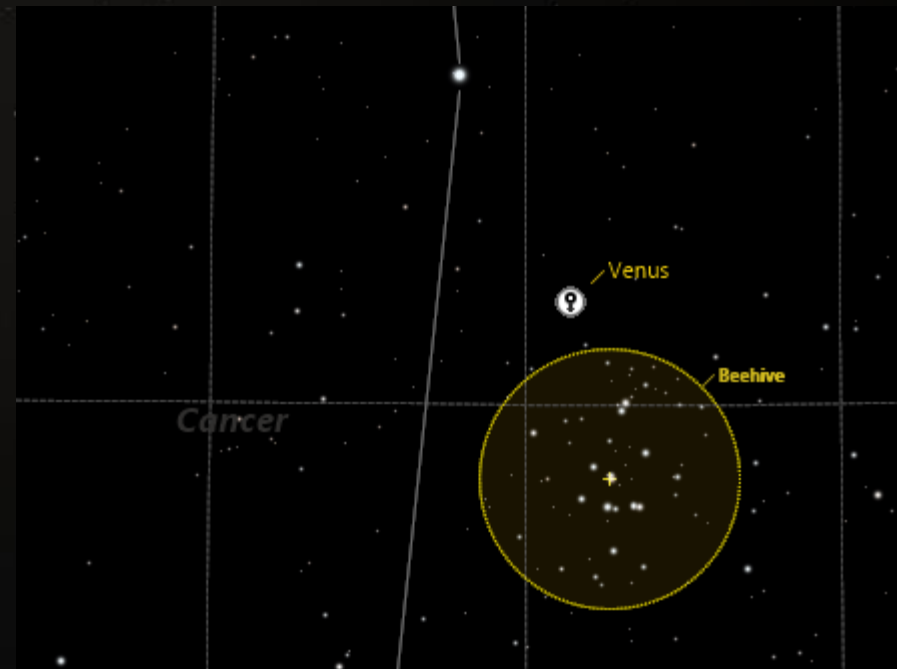
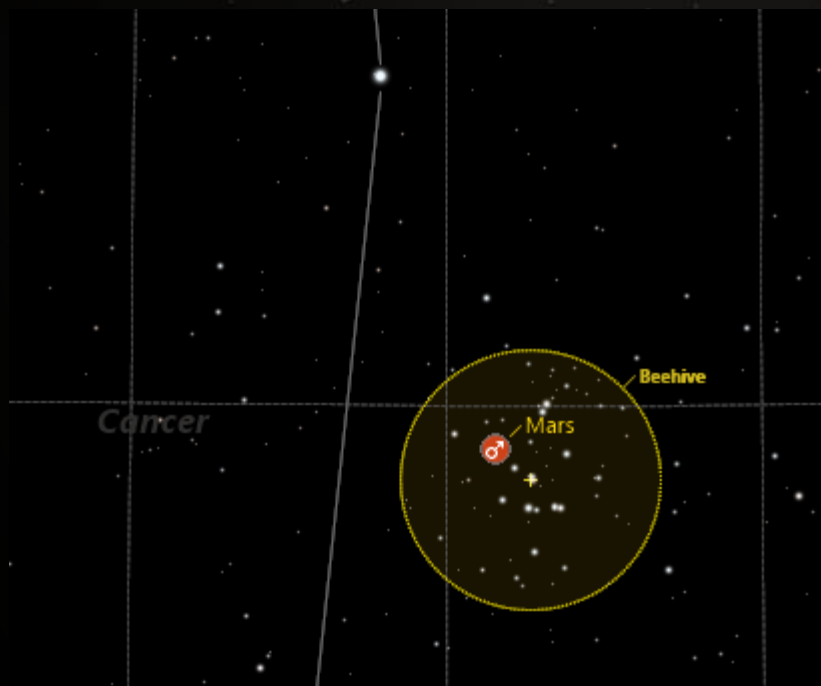
“We saw this
event happening
live!”

Shallow Sky Highlights for May-June 2023

- Venus: Continues prime observing conditions for us – high in the sky at sunset
 - Between now and our next meeting, the phase shrinks from 55% to 43% but the size increases 7" from 20" to 27". Catch it soon after sunset and use a filter to reduce glare.
- Mars is in evening sky as well but quite small, difficult for even imaging to see anything
- Saturn rises around 2am and is well situated in the pre-dawn sky for early morning (or all night!) observers.
- Jupiter is just climbing out of the dawn twilight

Beehive Buzz in June

- Open cluster M44 in Cancer has 2 visitors this month
 - Mars on June 2nd lies within the cluster
 - Venus on June 13th lies above it
 - New to observing? Let these planets help you find M44
- Conjunctions like this can be great photography targets!



Catch the Schroeter's Effect

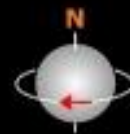
- The phase of Venus appears slightly concave when the Sun-Earth-Venus geometry indicates that it should be exactly half illuminated (dichotomy). This phenomenon was first noticed by the German amateur astronomer Johann Schroeter in 1793
- Dichotomy is scheduled for June 3rd – see if you can notice any deviation from a perfect “half-moon” phase, either visually or by imaging!



Tonight's Agenda, May 18, 2023

- Introductions
- Announcements
 - Star Parties
 - Astro-school Updates – **Phil Whitebloom**
 - Book of the month – **Krystal Rolon**
- Featured speaker - **Glen Nagle, Science Communicator, Canberra Deep Space Communication Complex**
- What's Out in the Sky This Month...
 - Solar – **Phil Whitebloom**
 - Shallow Sky – **Jim Tomney**
- ⇒ • Members' Astro-Images and Sketches
- Wrap-up & Discussion

Venus in May



IR (Astronomik 742nm)



2023-05-12 00:50.9 UT
CMI=150° CMII=226°
Seeing: 7/10 Trans: 6/10

Astrodon UVenus with IR Block



2023-05-12 00:45.3 UT
CMI=150° CMII=226°
Seeing: 7/10 Trans: 6/10

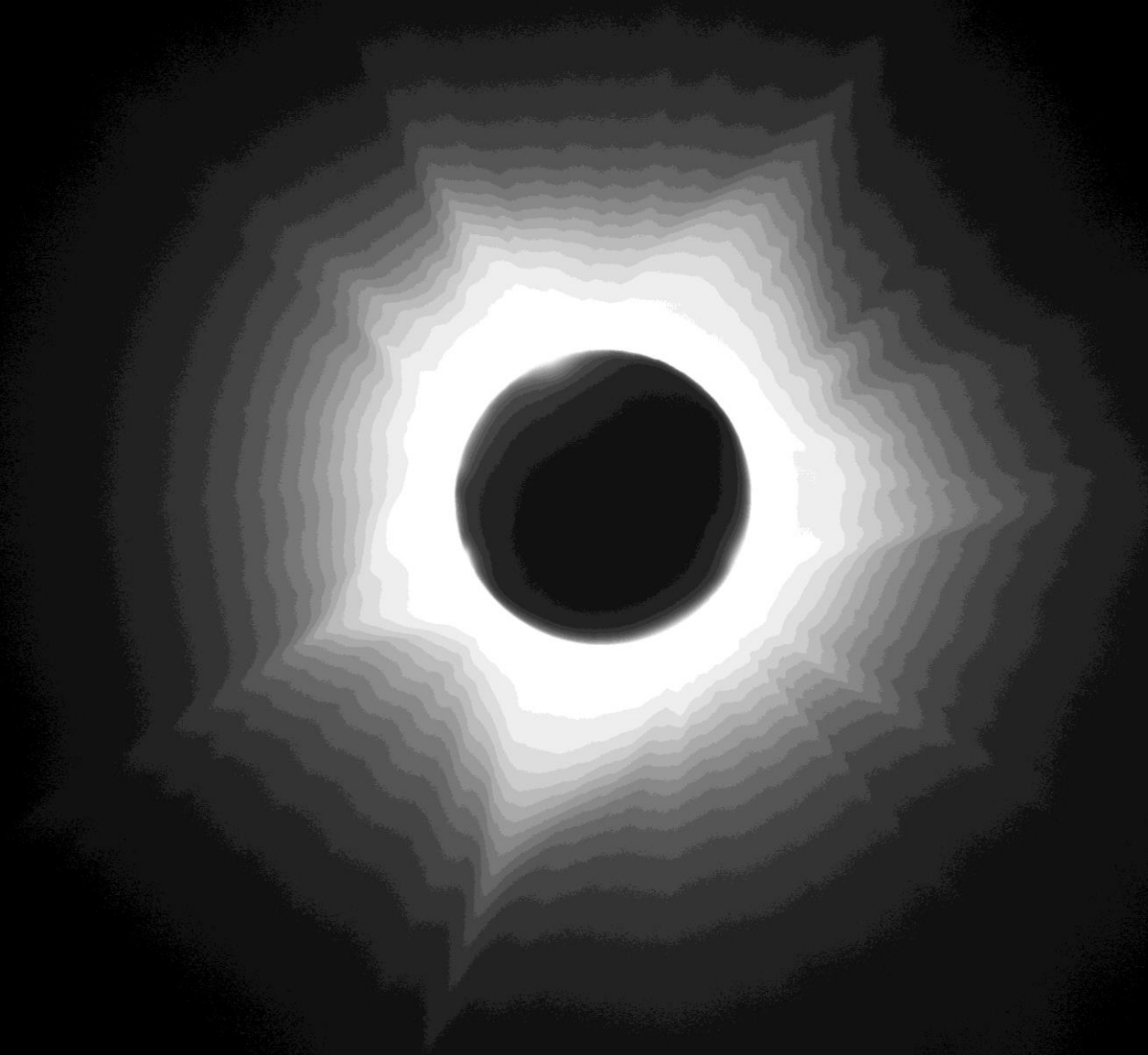


S. Cusp Cap

2023-05-16 00:36.9 UT
CMI=160° CMII=212°
Seeing: 7/10 Trans: 7/10

10" f/6 Newtonian Reflector
ASI178MC Camera

*Jim Tomney
Towson, MD US*





Our Sun
March 26, 2023
by *Phil Whitebloom*

