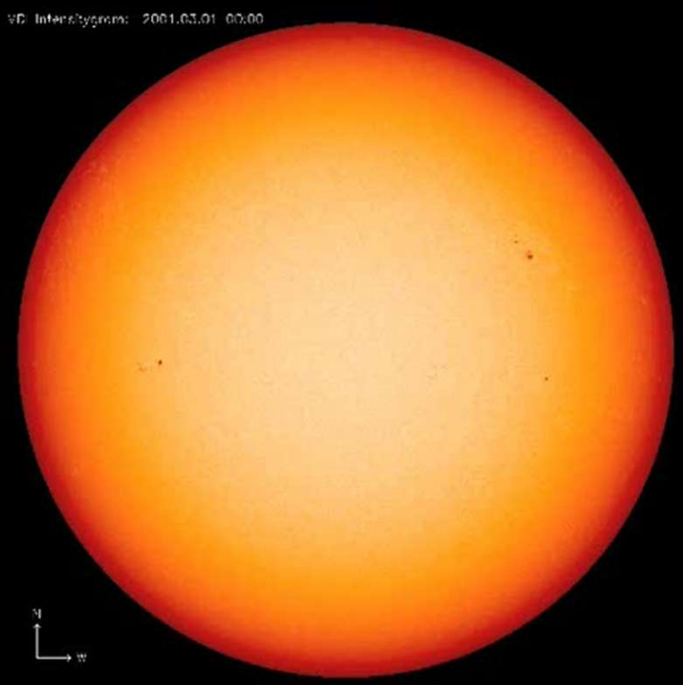
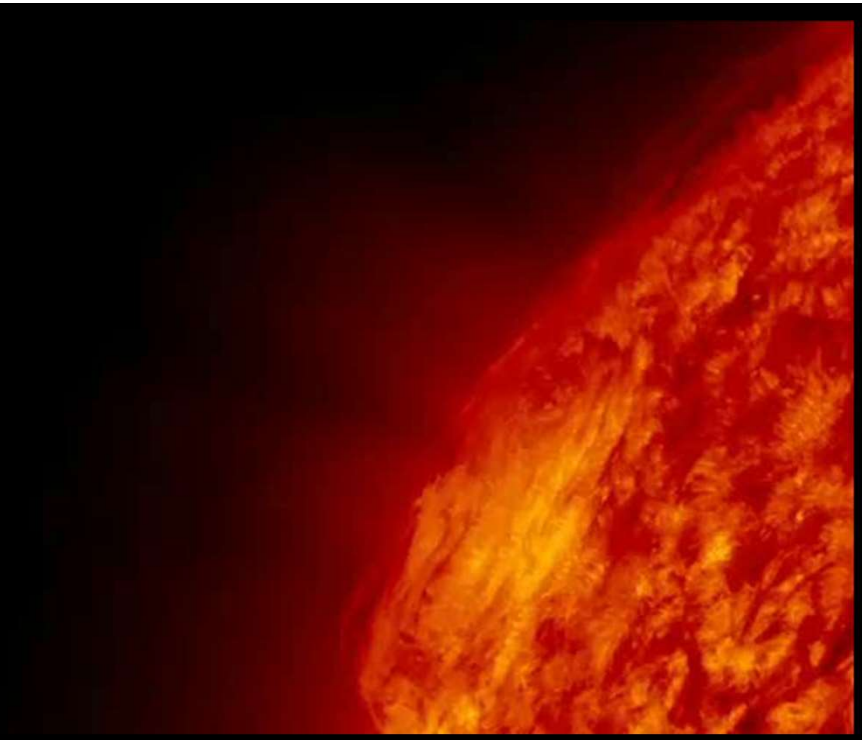
Nick James

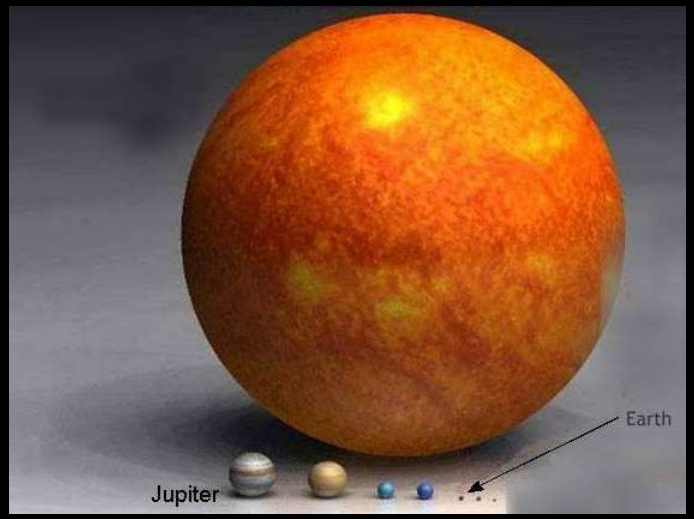
British Astronomical Association

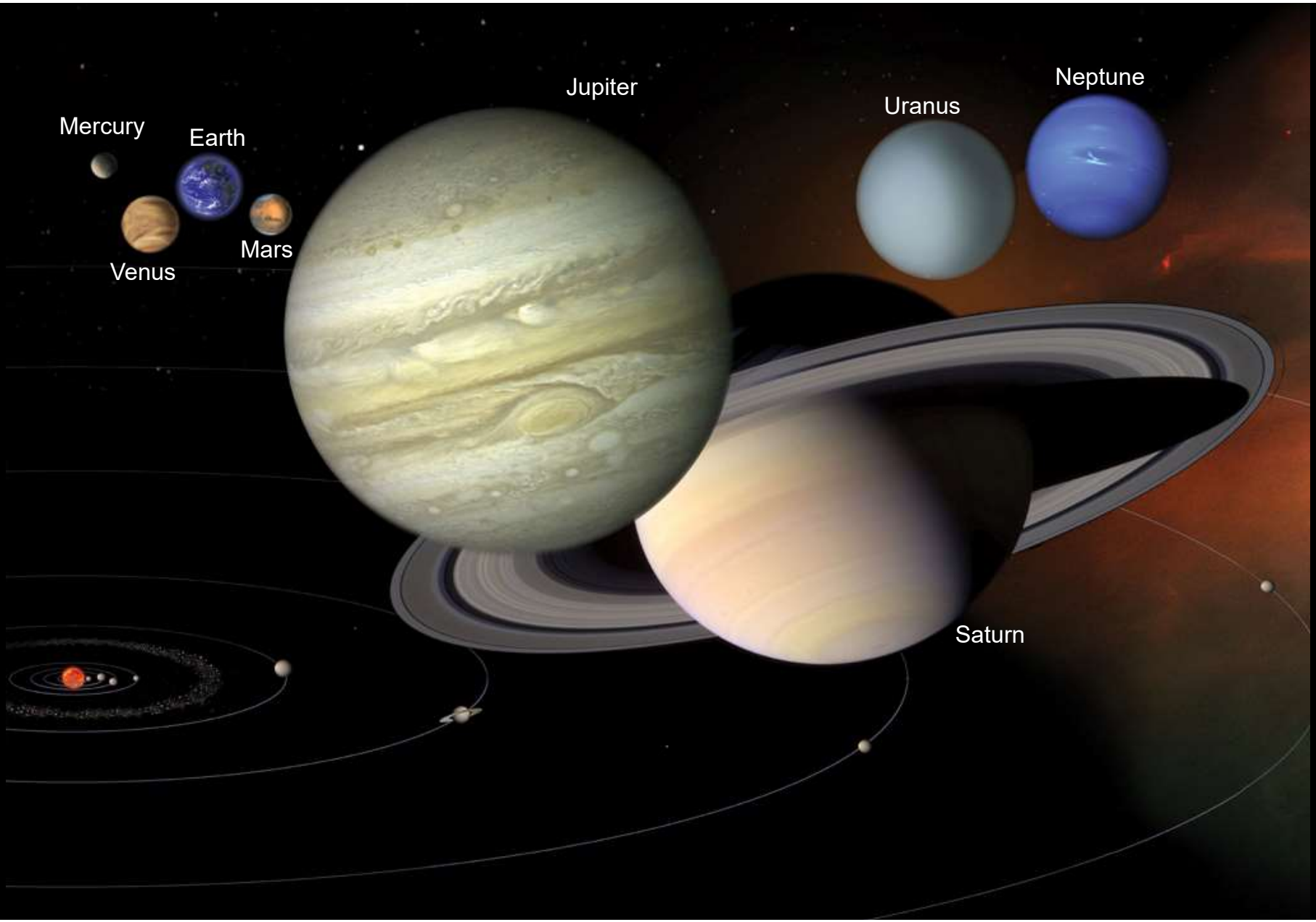
The Solar System

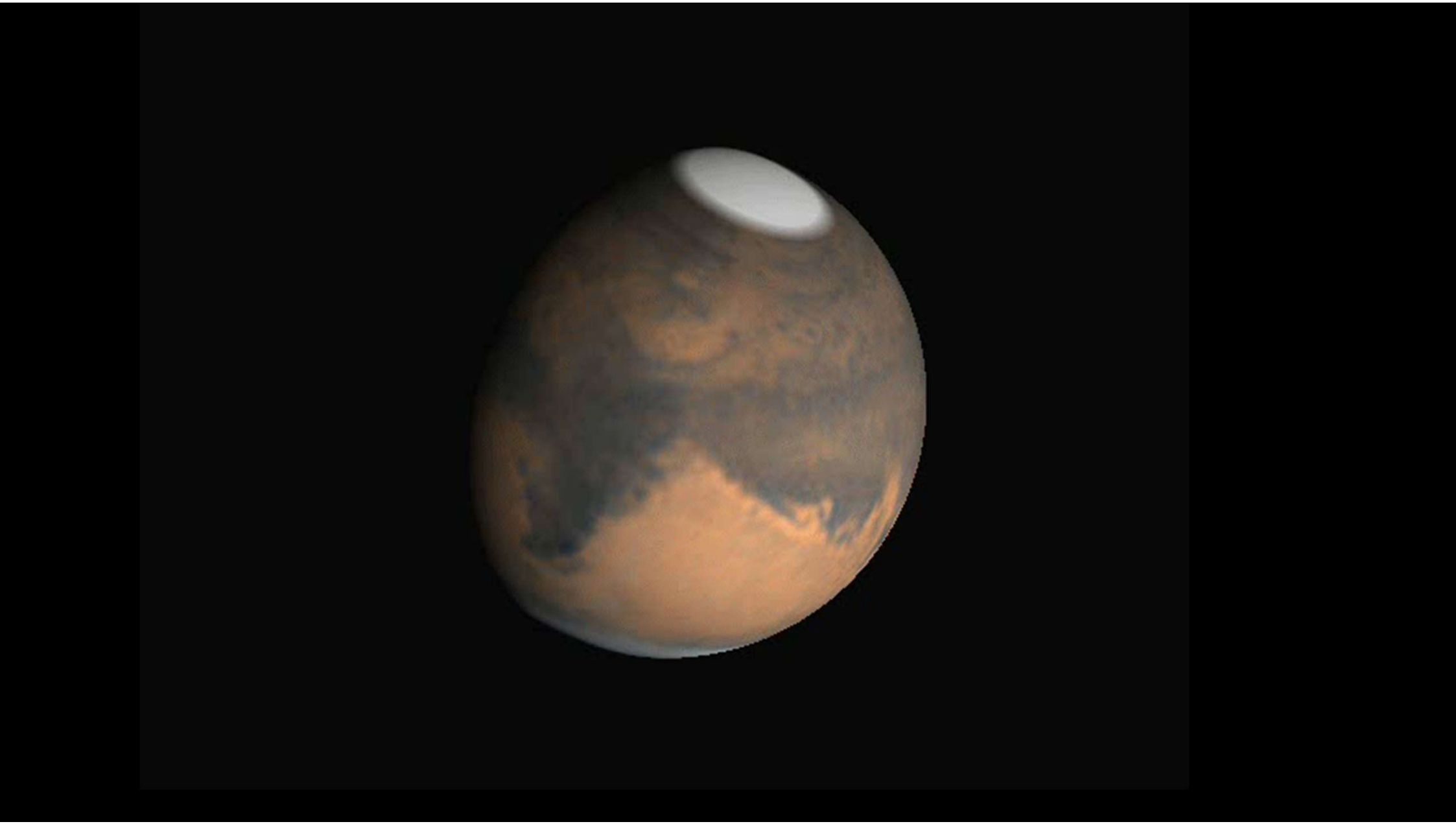
Greenwich B2B – November 2024

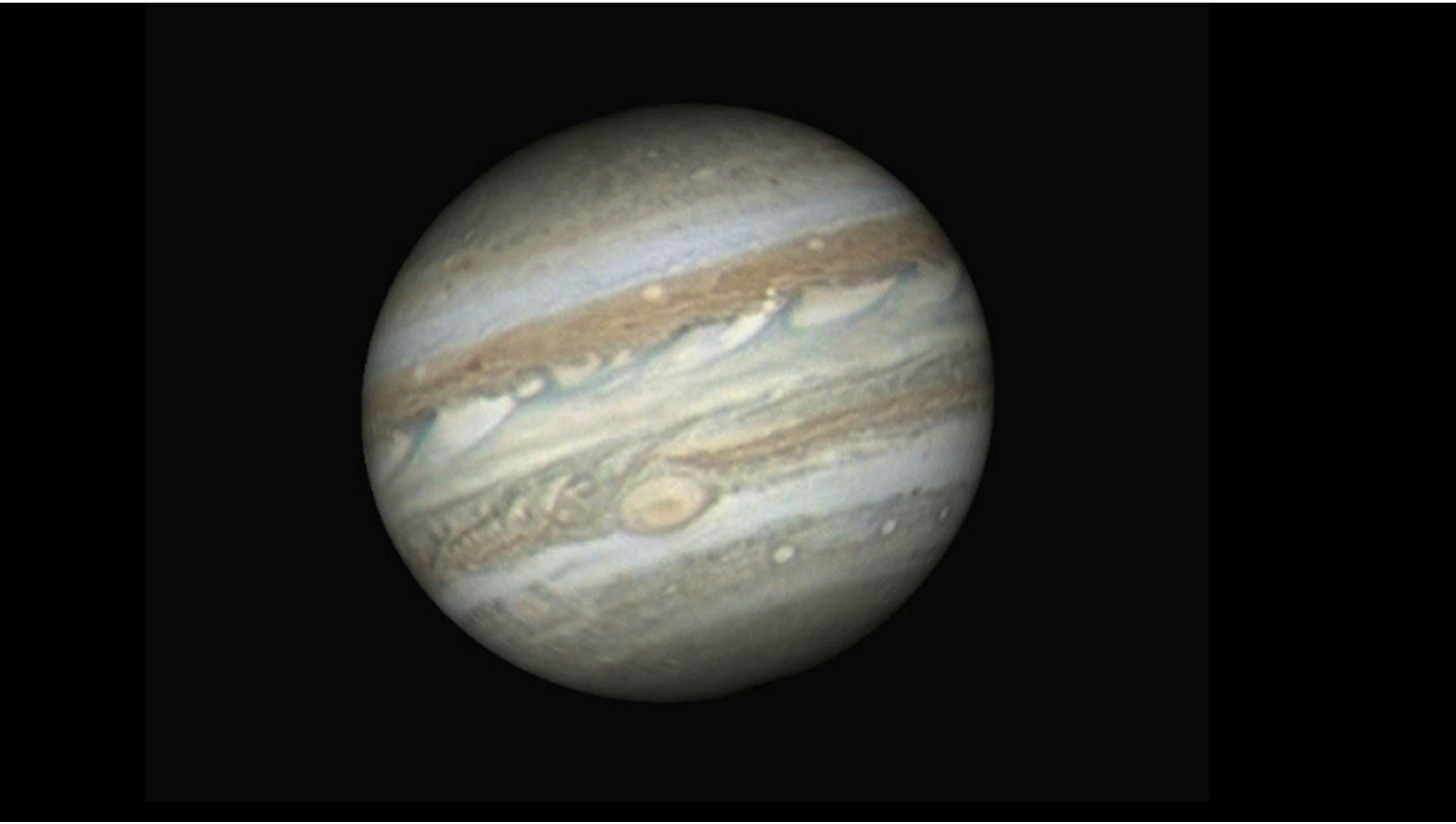

VD Interstyorm: 2001.03.01 00:00
N
W




Earth
Jupiter


Mercury
Earth
Venus
Mars
Jupiter
Uranus
Neptune
Saturn



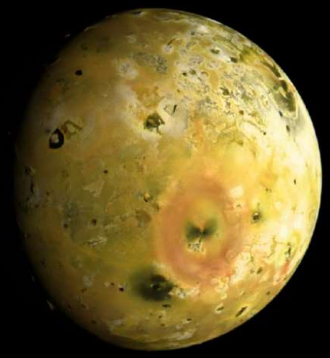


Solar System Major Moons

The Solar System contains 18 or 19 natural satellites of planets that are large enough for self-gravity to make them round. (Why the uncertain number? Neptune's moon Proteus is on the edge.) Two of them are larger than Mercury; seven are larger than Pluto and Eris. If they were not orbiting planets, many of these worlds would be called "planets," and scientists who study them are called "planetary scientists."

Images from Galileo (Jupiter's moons), Cassini (Saturn's moons), Voyager 2 (Uranus and Neptune's moons). Data from NASA/JPL, processed by Ted Stryk, Gordan Ugarkovic, Emily Lakdawalla, and Jason Perry. Earth's Moon photo by Gari Arrillaga. Montage by Emily Lakdawalla, The Planetary Society, blog@planetary.org.

Jupiter...



Io

Europa

Ganymede

Callisto

Saturn...

Mimas

Enceladus

Tethys

Dione

Rhea

Titan

Iapetus

Earth...

The Moon

Uranus...

Miranda

Ariel

Umbriel

Titania

Oberon

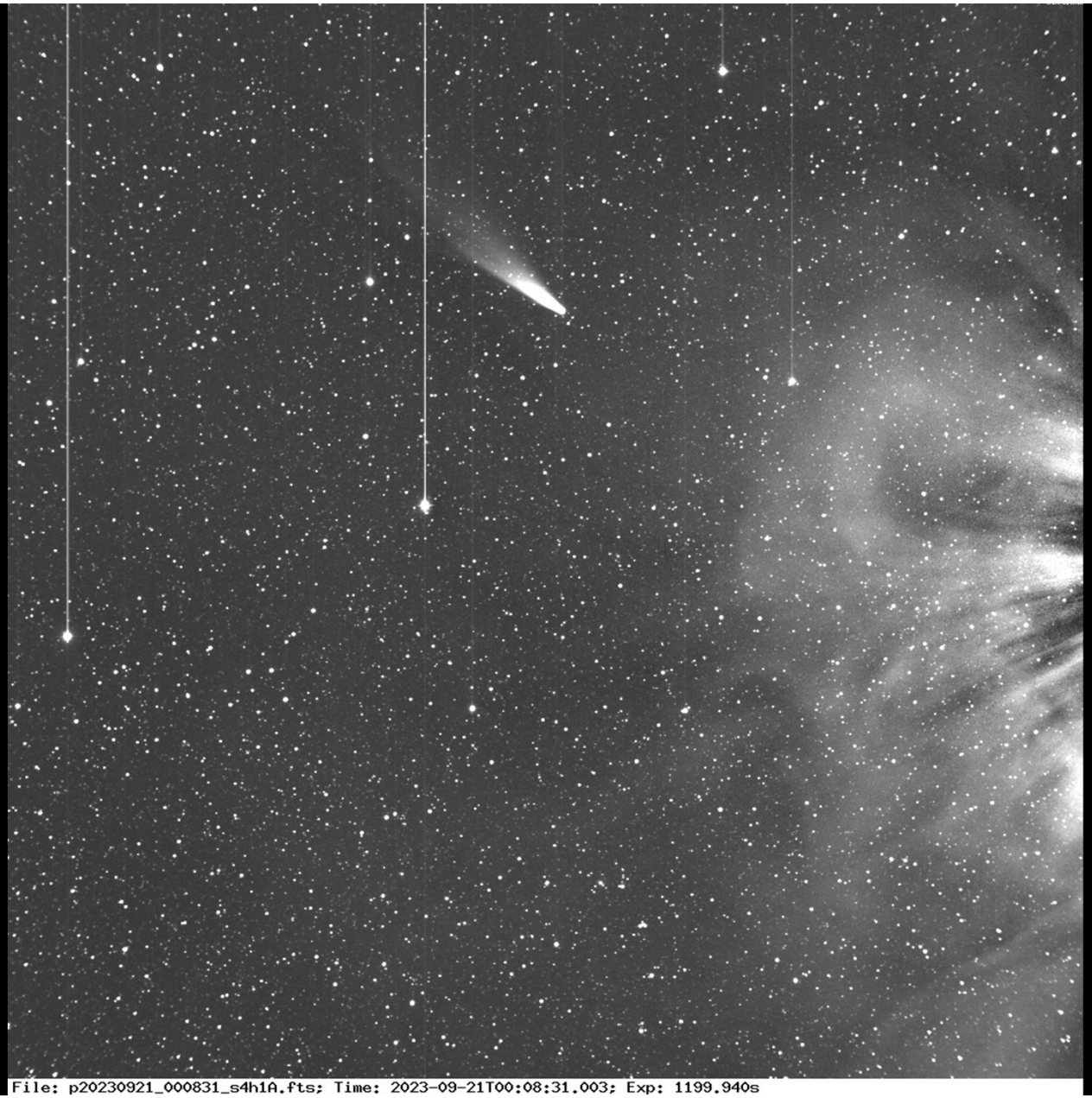
Neptune...

Proteus

Triton

THE PLANETARY SOCIETY


2024-11-22 21:00
Ganymede (JIII)
Io (JI)
Jupiter
Europa (JII)
Callisto (JIV)


File: p20230921_000831_s4h1A.fts; Time: 2023-09-21T00:08:31.003; Exp: 1199.940s


2024-10-19 18:47:47

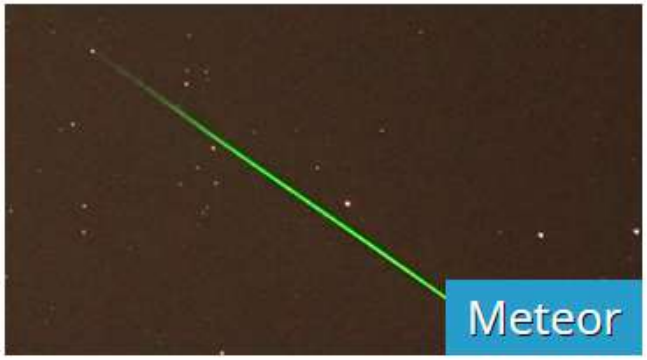
Sun
Mercury
Venus
Earth
Mars
Jupiter
Saturn
Uranus
Neptune
Termination Shock
Heliopause
Oort Cloud
α-Centauri
AC +79 3888
1
10
100
1,000
10,000
100,000
1,000,000
Voyager 1
Heliosphere
Interstellar Space


Jupiter


Lunar

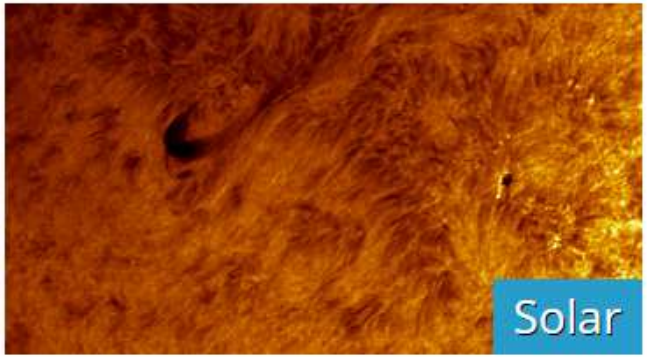

Mars


Mercury and Venus

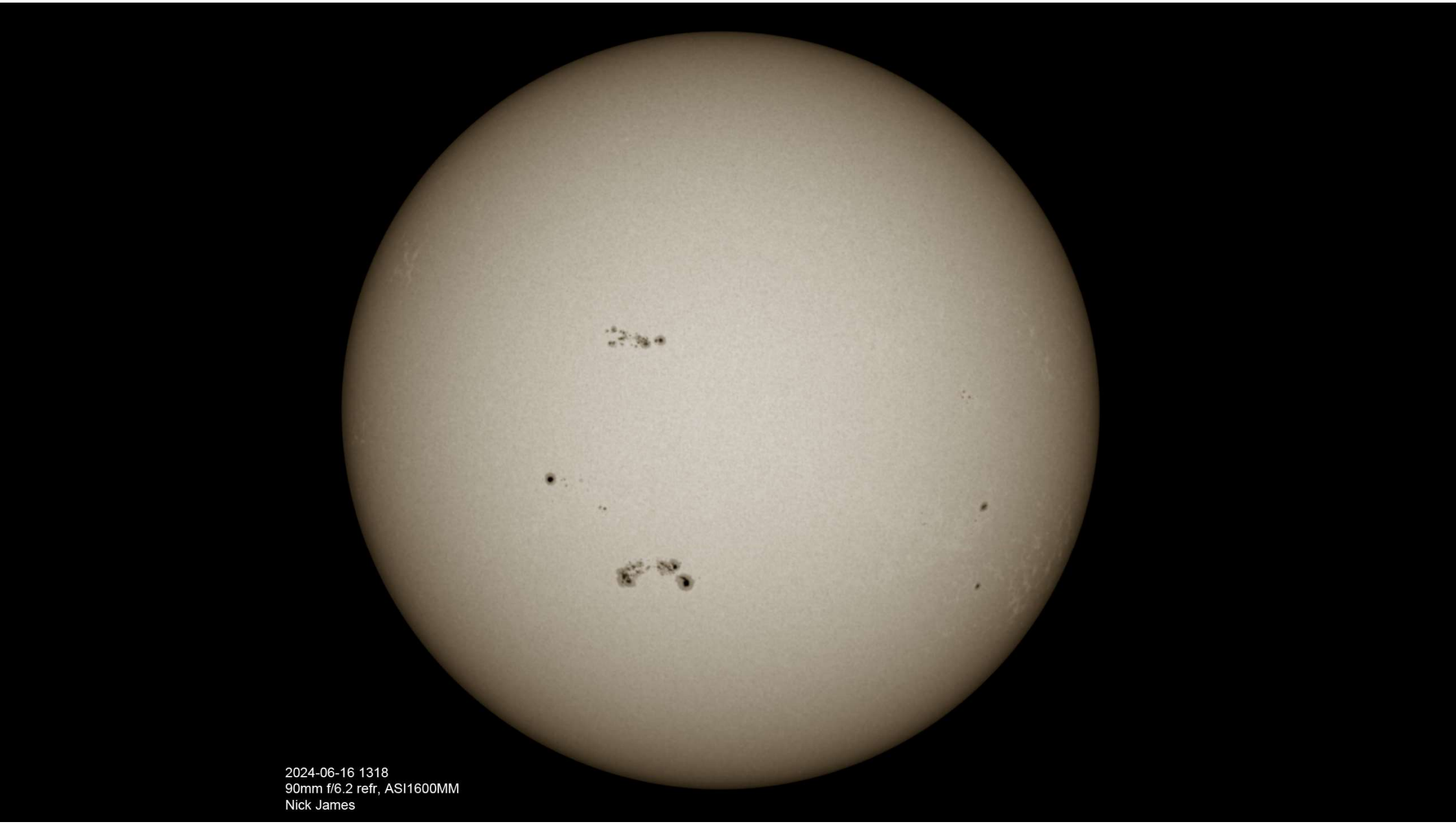

Meteor


Asteroids & Remote Planets

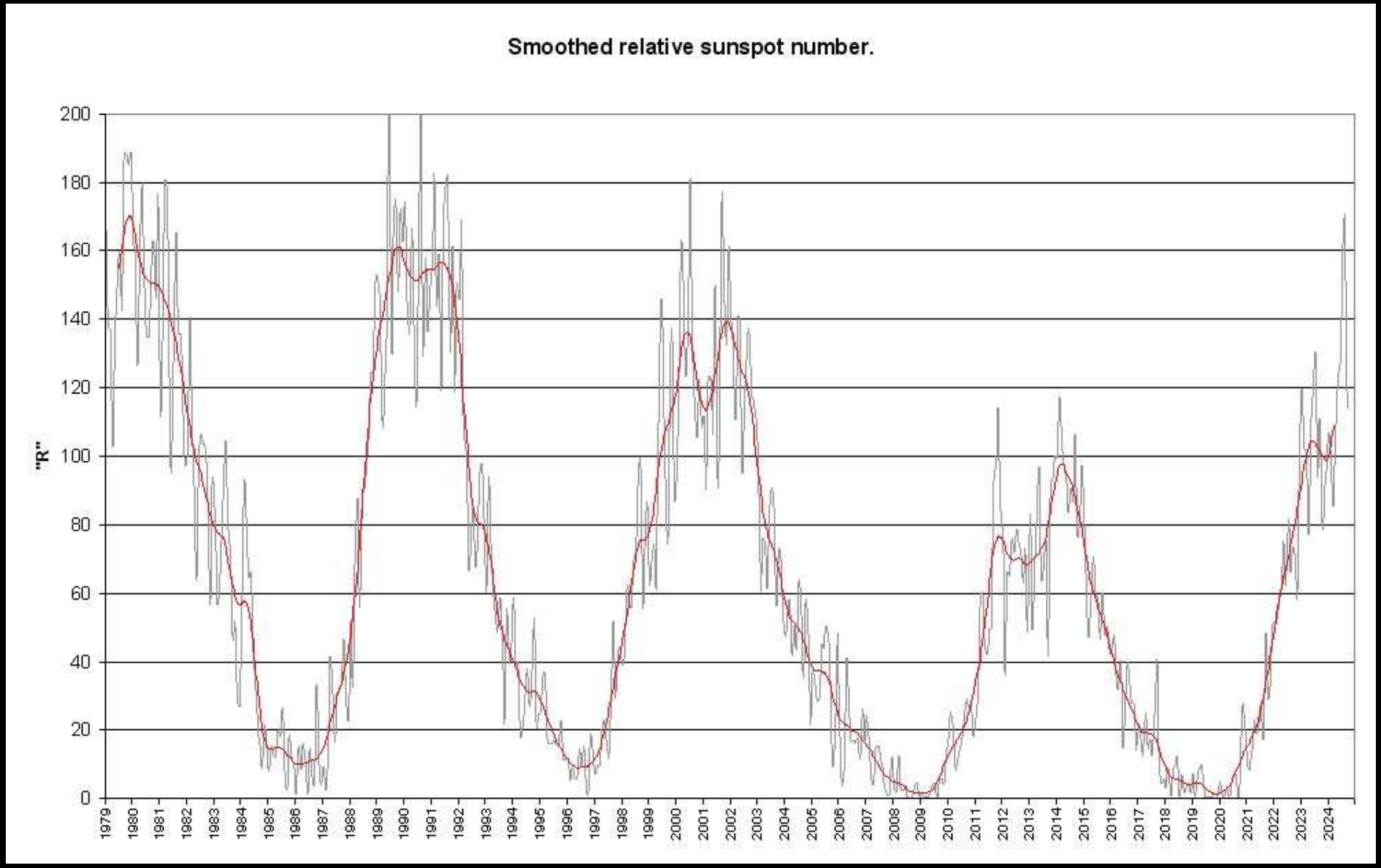

Saturn, Uranus & Neptune


Solar


Comet


2024-06-16 1318
90mm f/6.2 refr, ASI1600MM
Nick James

Projecting an image of the Sun with a small refractor.


Smoothed relative sunspot number.
"R"
200
180
160
140
120
100
80
60
40
20
0
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1981
1982
1983
1984
1985
1986
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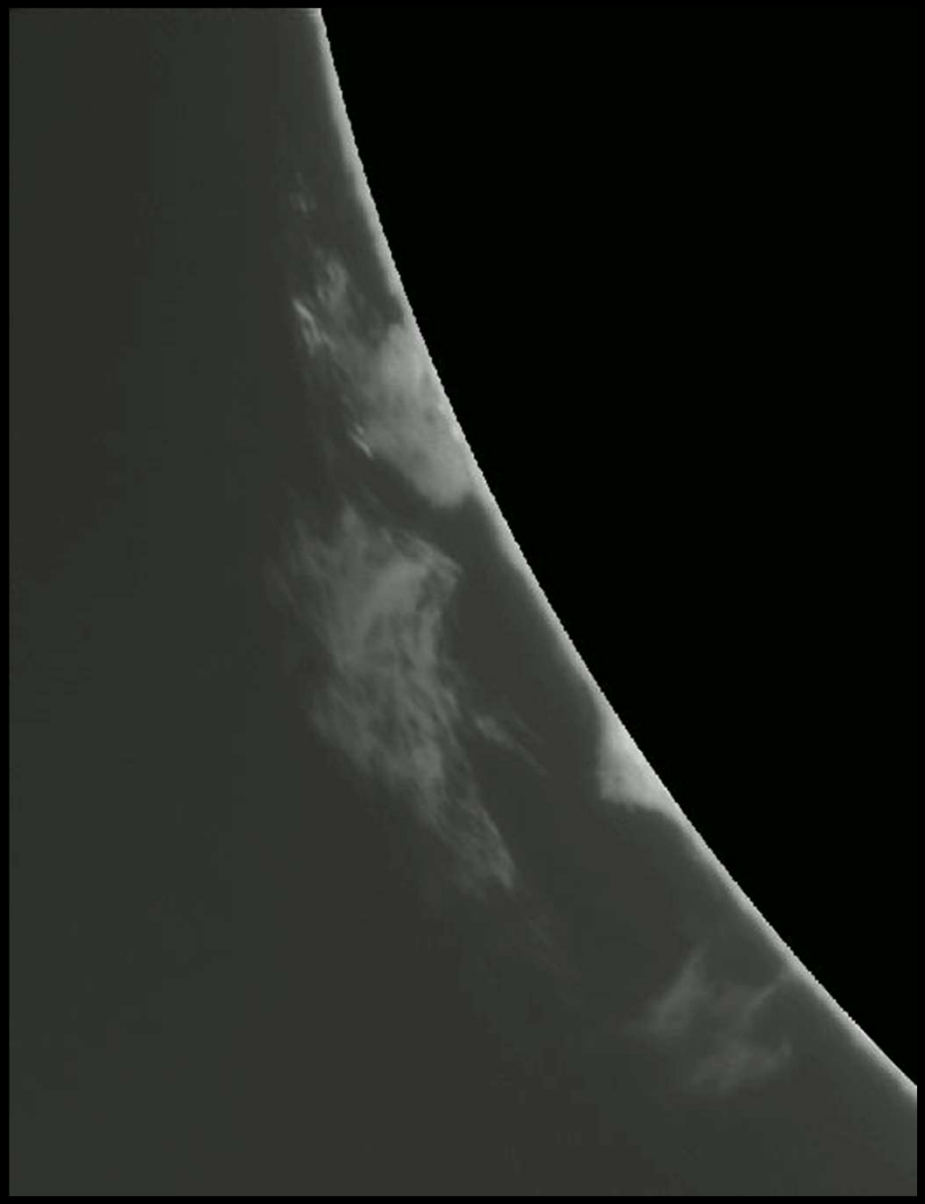
2023
2024

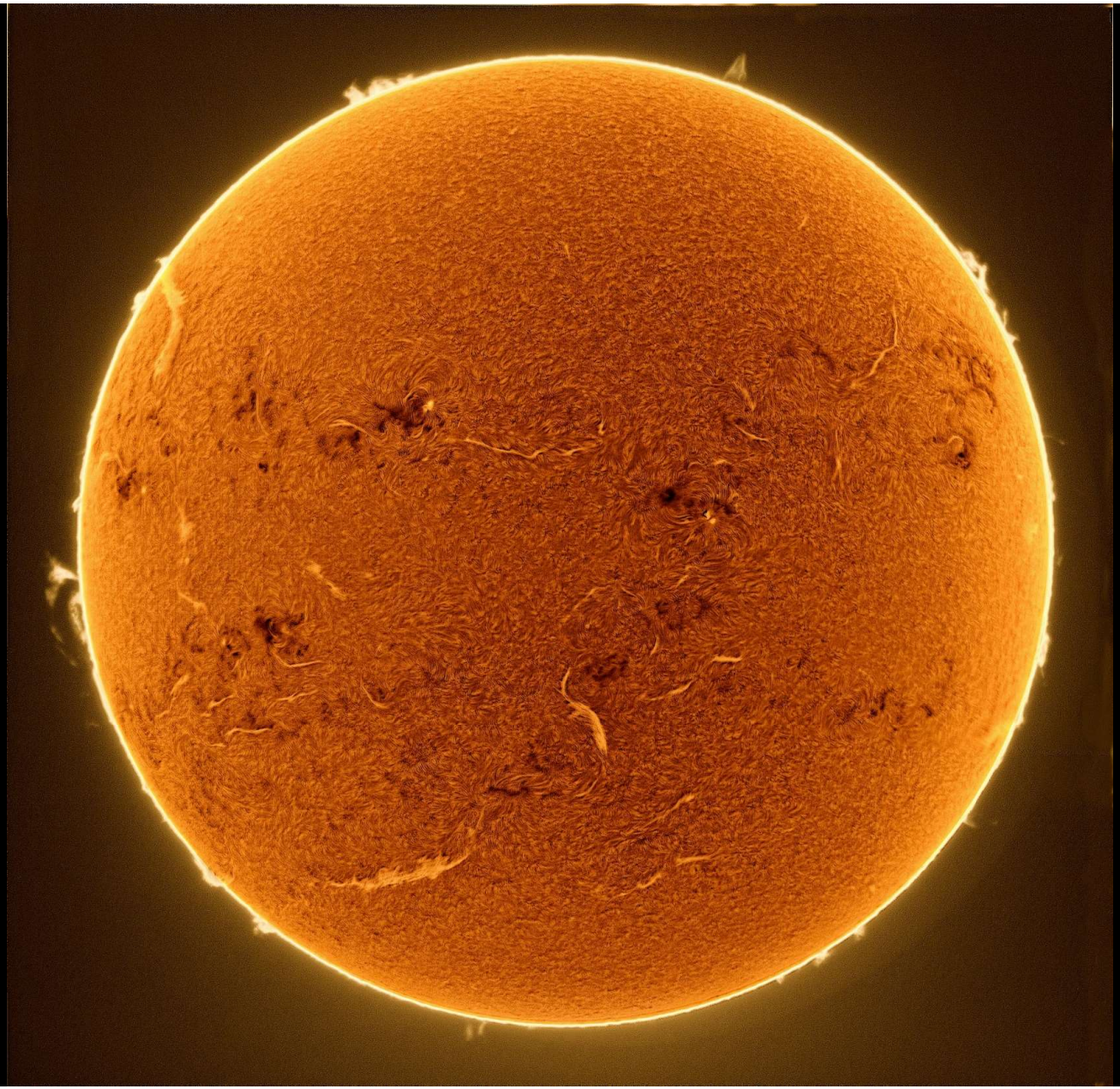
Projecting an image of the Sun with a small refractor.



Alun Halsey
2024 Mar 03 - 13:23

Bresser 90mm f/10 Achromat/Lunt pressure tuned modu
Lunt 100mm ERF
QHY5III 178M (using ROI to keep inside sweet spot of eta
Mesu 200 Mk1

Reading Berkshire UK

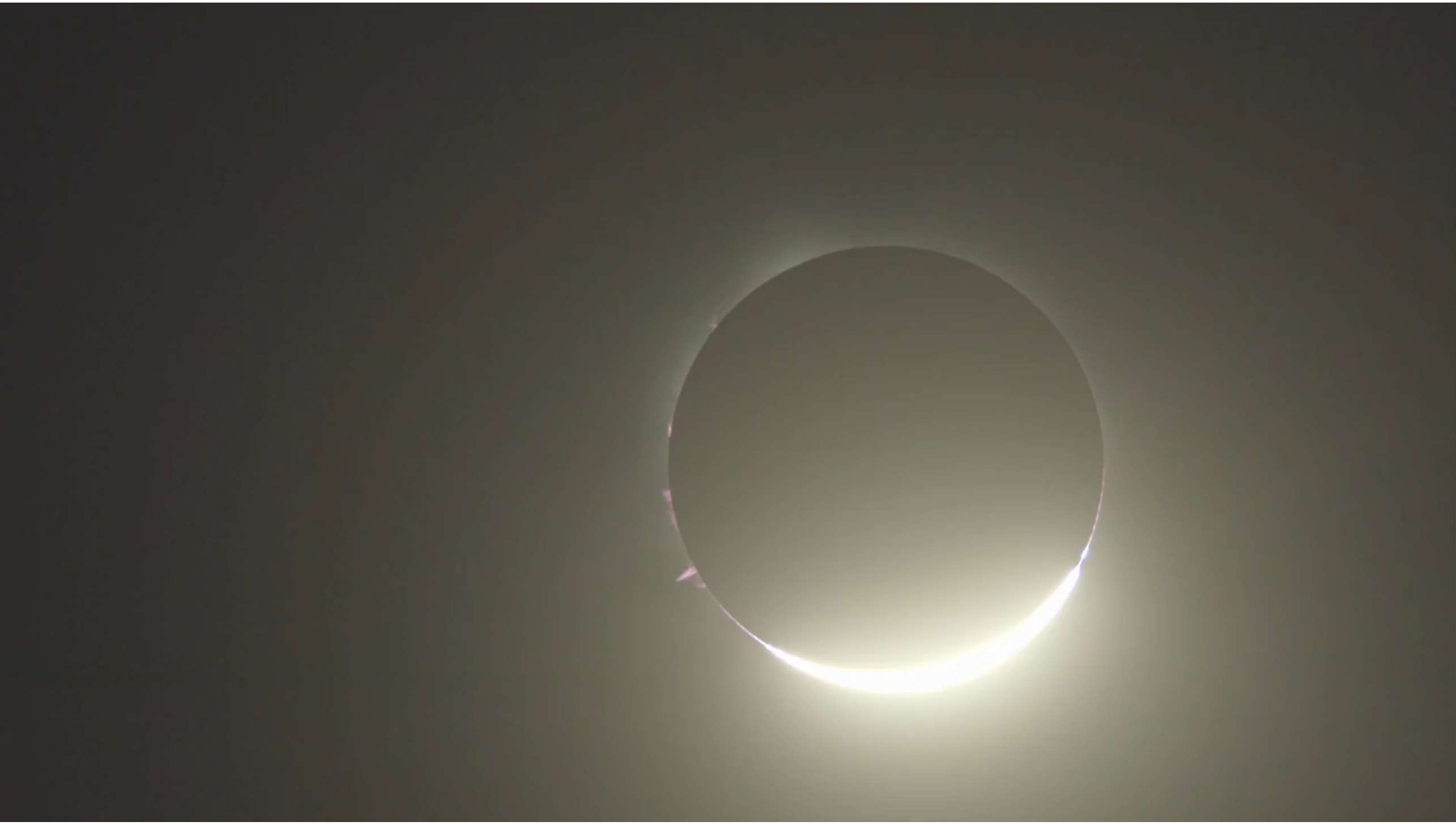


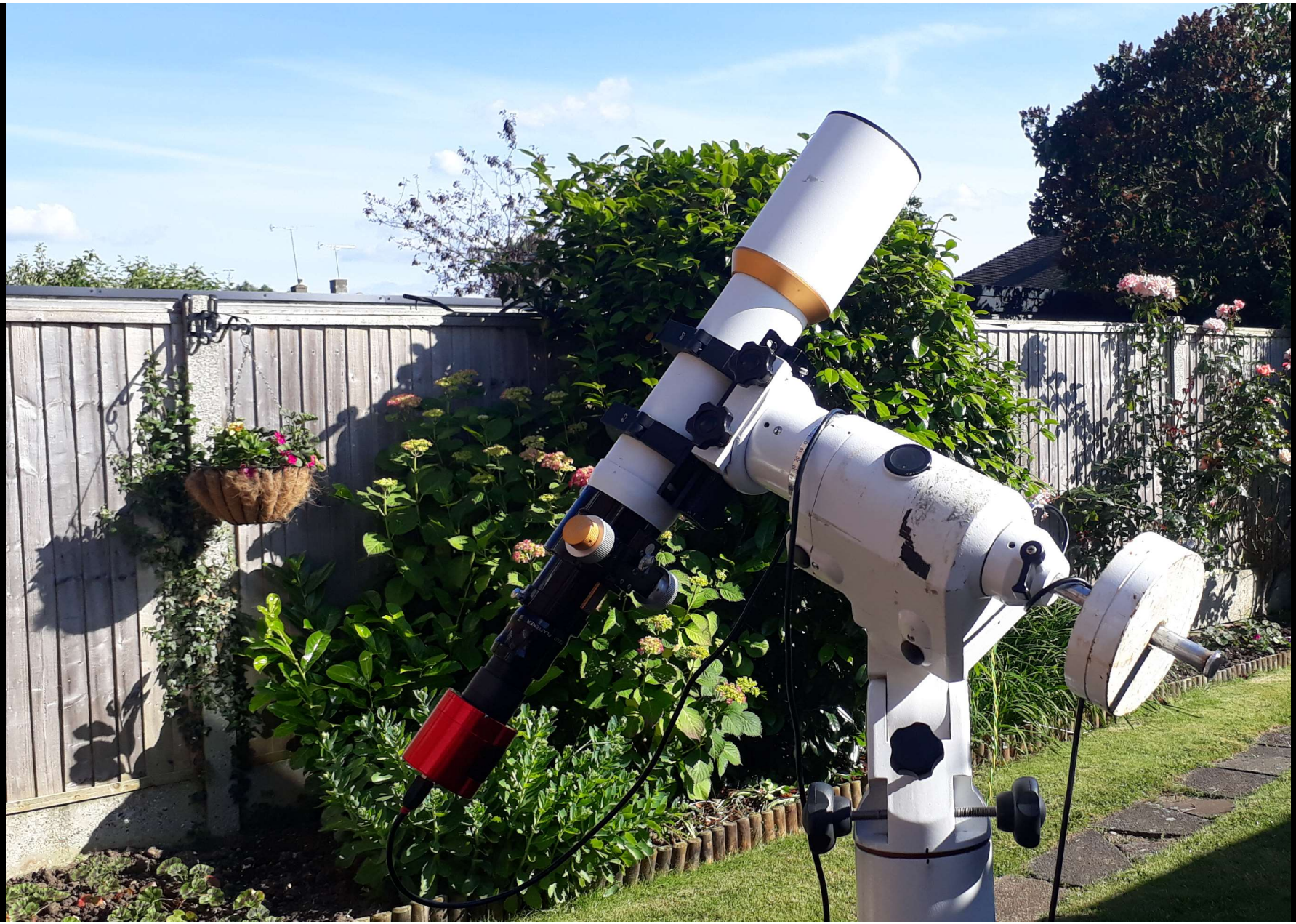
Anton Matthews

2024 Jan 16 - 11:00

Coronardo Solarmax 60 DS
Exposure
Zwo 178mm

Bristol






2005-06-03
2005-09-03
0.30m, f/5.25 Newt. + Canon EOS 10D. Nick James.


Transit of Mercury and an MD-11
2019-11-11 13:47:19 UTC
Celestron C6 + ASI294 MC
Nick James, Chelmsford

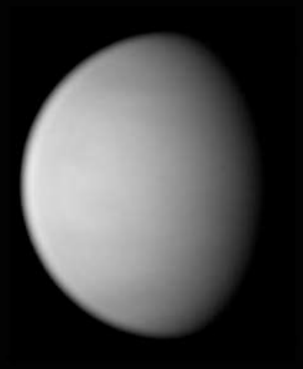
Venus

14 January 2024
Diameter: 13,2"
Phase: 0,815
Drizzle 1.5x

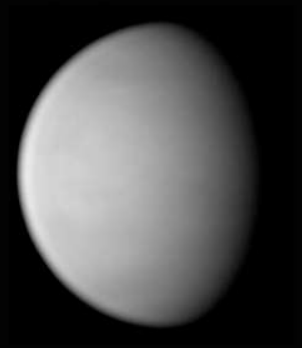
ZWO 890nm
20nm b/w

North up

03 49.5UT
/ 320 // 332



04 26.4UT
/ 320 // 334



Additional
Sharpening

10 x10 000 (30%) captures
stacked, not derotated

11 x10 000 (30% stack) captures
stacked, not derotated

355mm Celestron Edge HD SCT
2x Televue Powrmate
ZWO ASI290MM

Clyde Foster
Oryx Observatory
Khomas, Namibia

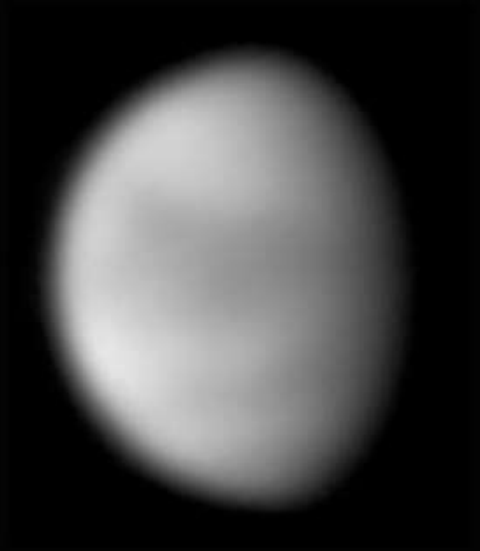
Venus

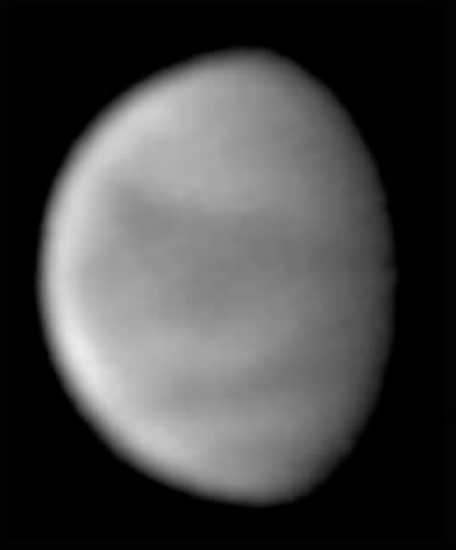
14 January 2024
Size: 13,2"
Phase: 0,815
Drizzle 1.5x

Chroma
Bessel-U
04 07.8UT
/ 320 // 333

North up

Additional
sharpening



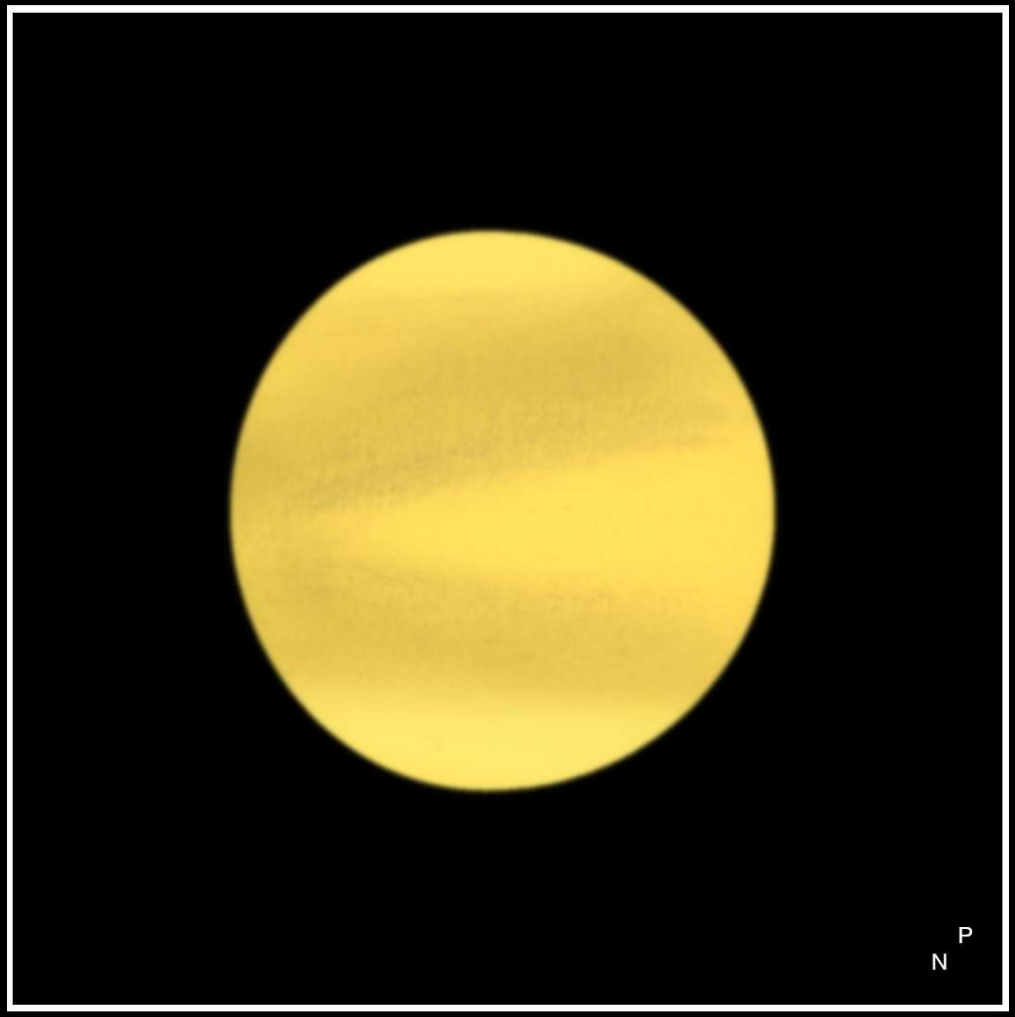


355mm Celestron Edge HD SCT
2x Televue Powrmate
ZWO ASI290MM

9 x10 000 (30% stack) capture
stacked, not derotated

Clyde Foster
Oryx Observatory
Khomas, Namibia

Venus Observation



Disk Drawing: 1118UT, x125, Seeing: AIII CM1: 151.1° CM2: 325.0°

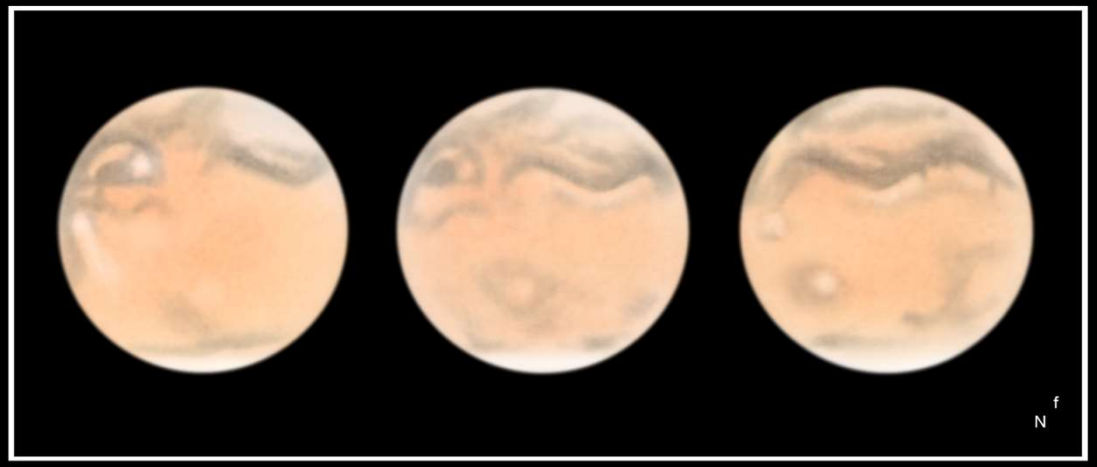
2024 March 24th, Start: 1110UT Finish: 1125UT, Sky: Bright, Seeing: AIII - some passing clouds
203mm Newtonian Reflector, x125. Filter(s): W15 (yellow)
Phase (th)= 94.9%, Phase(W15)= 95%, Ls= 319°, Disk Diameter= 10.4"

Paul G. Abel, Leicester UK

Mars RGB 14th Nov. 2022 00.11UT M.Lewis St.Albans UK 444mm Dob. @ 0.062"/pix
with ASI224MC + ADC WJ Derotate CM=22° Dia. 16.4" Alt. 55° S. top


Mars RGB 22nd Nov. 2022 23.33UT M.Lewis St.Albans UK 444mm Dob. @ 0.047"/pix
with Uranus-C camera + ADC WJ Derotate CM=292° Dia. 17.0" Alt. 57° S. top

Mars at Opposition:



Disk Drawing 1: 2112UT, x320
CM: 125.9°, Seeing: AII

Disk Drawing 2: 2220UT, x320
CM: 142.5°, Seeing: AII

Disk Drawing 3: 2354UT , x320
CM: 165.4°, Seeing: AII

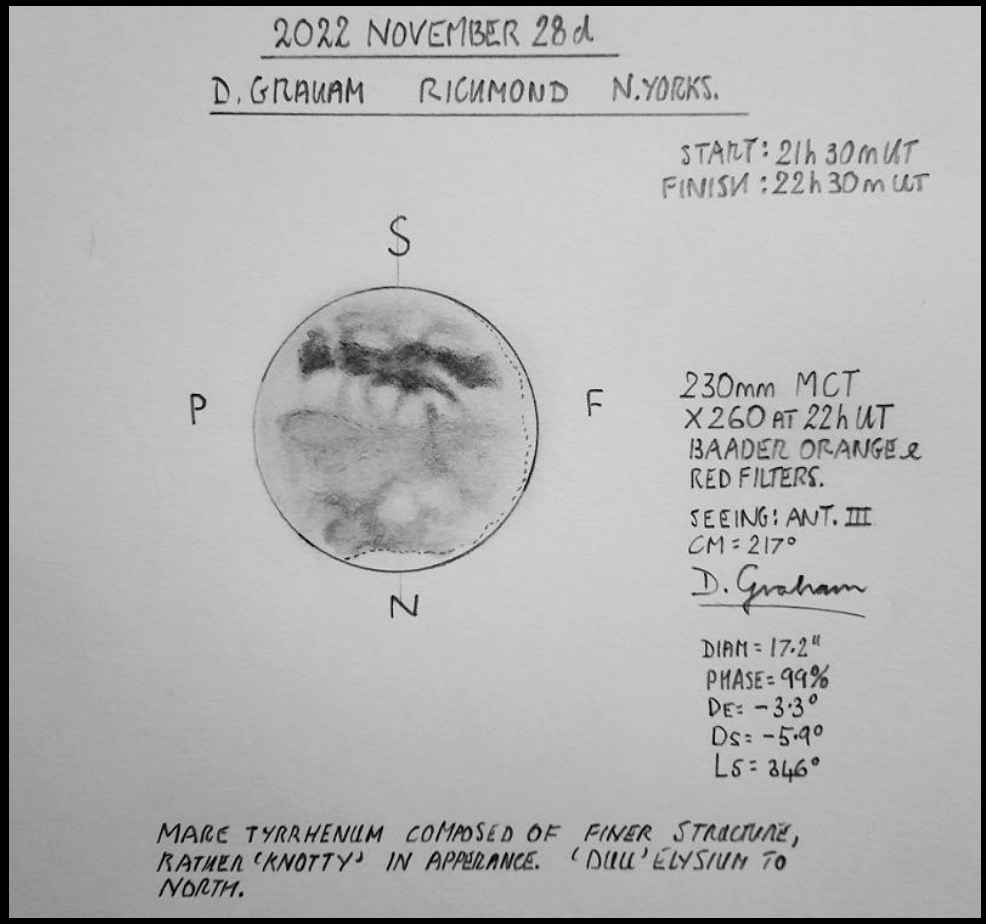
Disk Drawing 4: 0117UT, x320
CM: 185.7°, Seeing: AII

Disk Drawing 5: 0252UT, x300
CM: 208.8°, Seeing: AIII

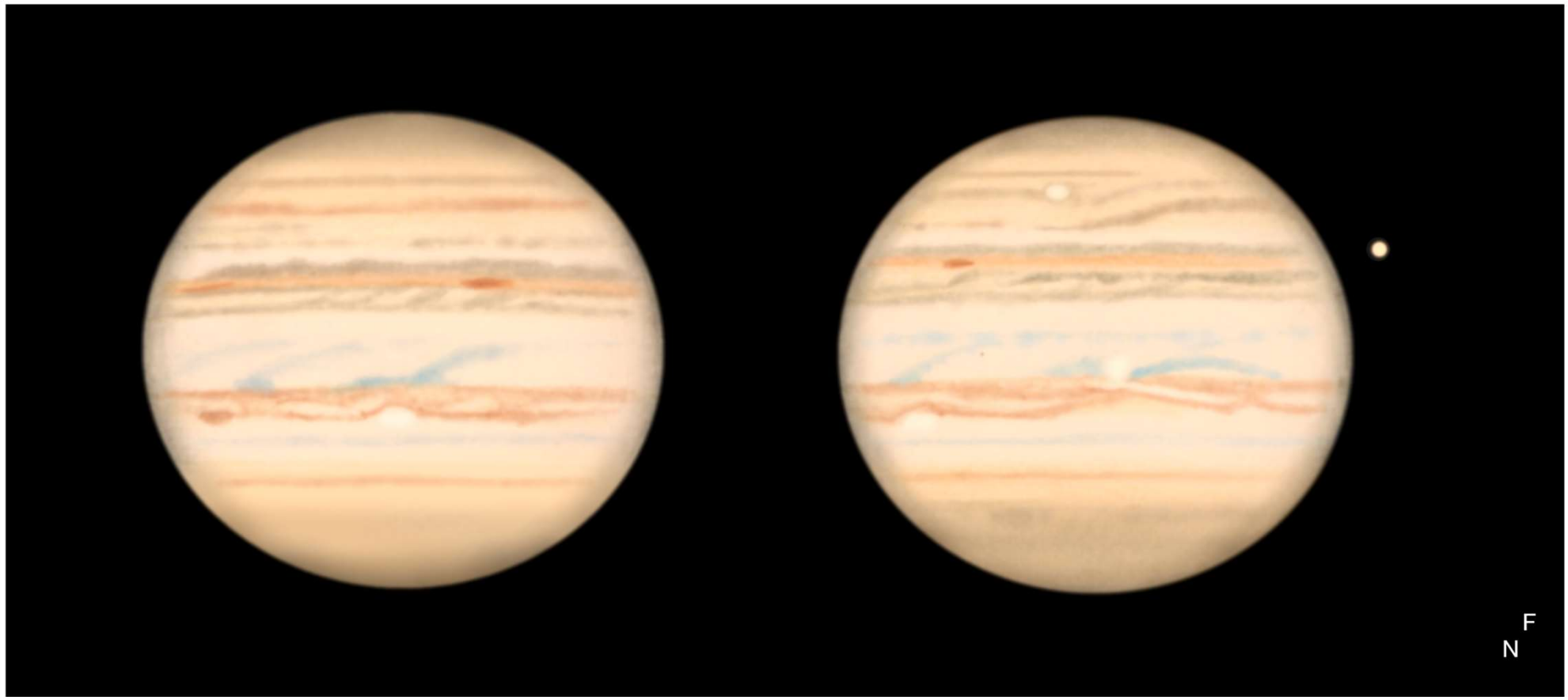
Disk Drawing 6: 0428UT, x300
CM: 232.2°, Seeing: AIII

2022 Deceomber 07 - 08. Start: 2103UT Finish: 0558UT, Seeing: AII - AIII, Transparency: Very good- icy conditions.
305mm newtonian Reflector, x320 & x300. Filter(s): None- integrated light only.
P= 327.4°, Q= 218.9°, Latitude Disk Centre= -5.2°, Ds= -4.0°, Ls= 351°, Phase= 100%, Disk Diameter= 17.1"

Paul G. Abel, Leicester UK



Jupiter Observation



Disk Drawing 1: 2032UT, x230, Seeing: AII
CM1: 281.1° CM2: 222.0° CM3: 266.7°

Disk Drawing 2: 2145UT, x230, Seeing: AI-II
CM1: 325.6° CM2: 266.1° CM3: 310.8°

2023 November 29th, Start: 2018UT Finish: 2148UT, Seeing: AI- AII, Transparency: Average- hazy skies.
305mm Newtonian Reflector, x230. Filter(s): None- integrated light only.
B= 3.2°, Ds= 3.1°, Ls= 43°, Disk Diameter= 47.9"

Paul G. Abel, Leicester UK

Jupiter with Great Red Spot

2023-11-30
2118 & 2149 UT

CM1: 107.7 & 126.1
CM2: 40.2 & 58.9

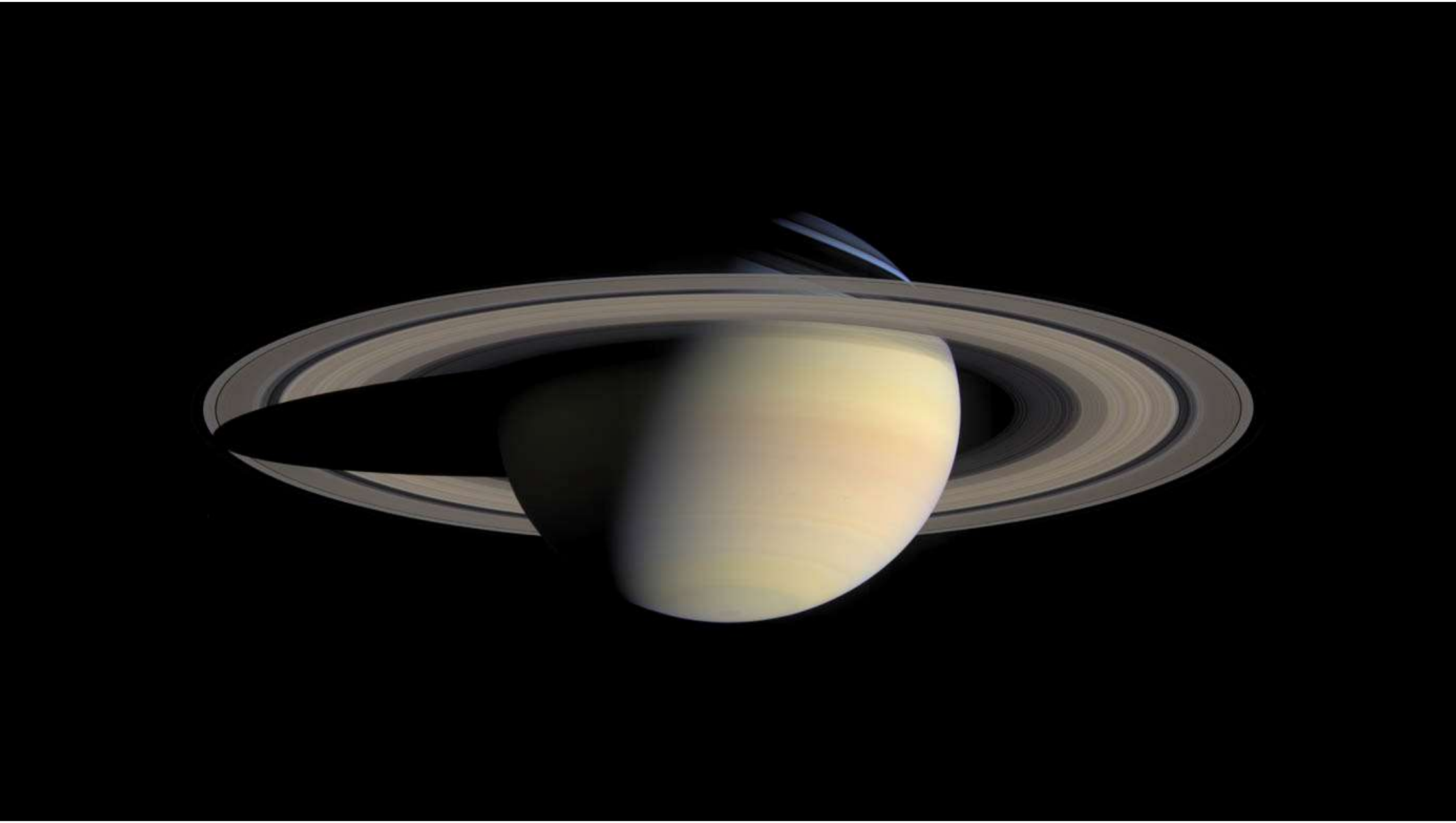
Observer: Chris Hooker

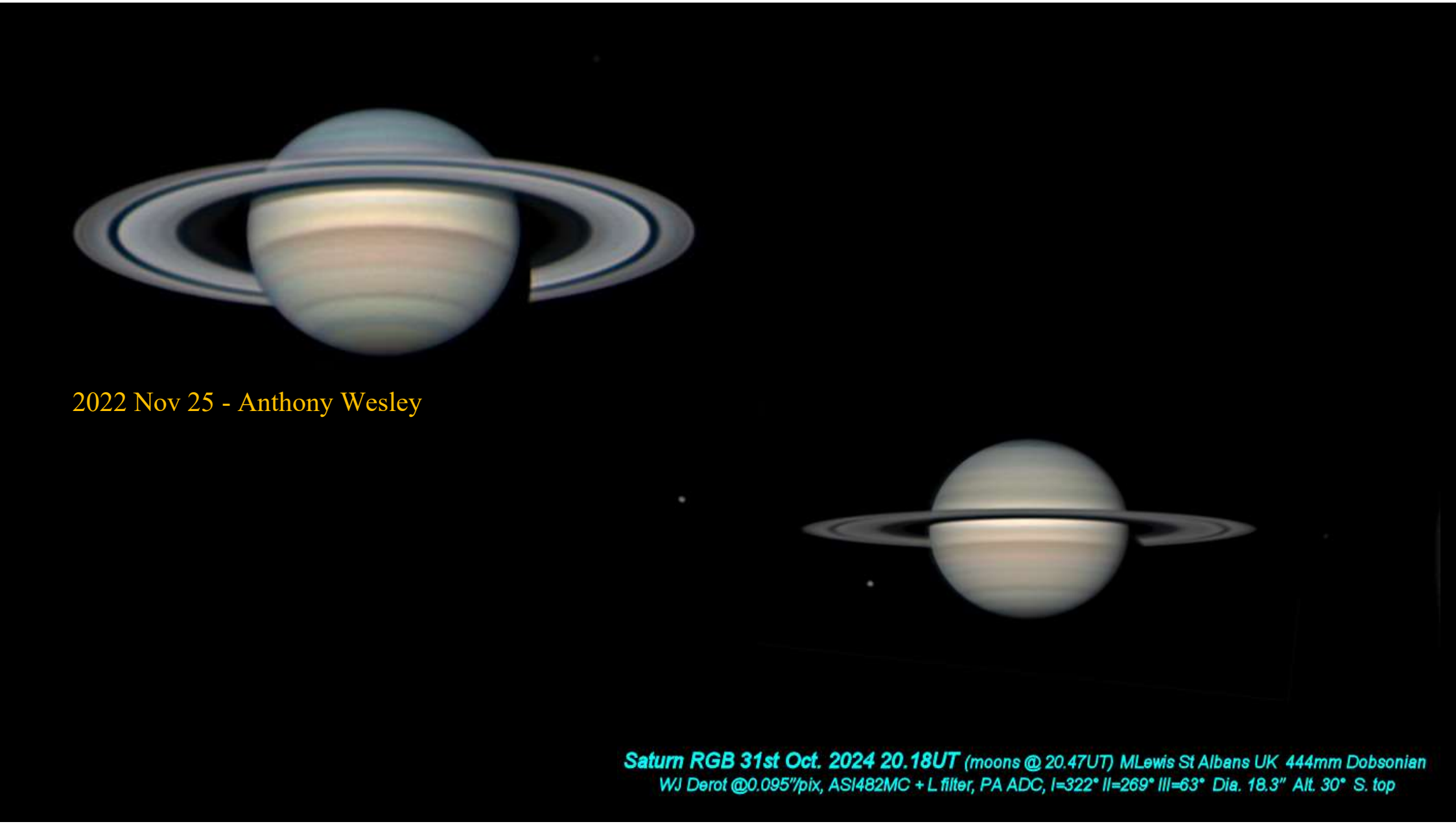
Location: Didcot, Oxfordshire

254 mm Newtonian, x3 Barlow, IR-cut filter, ASI462MC camera

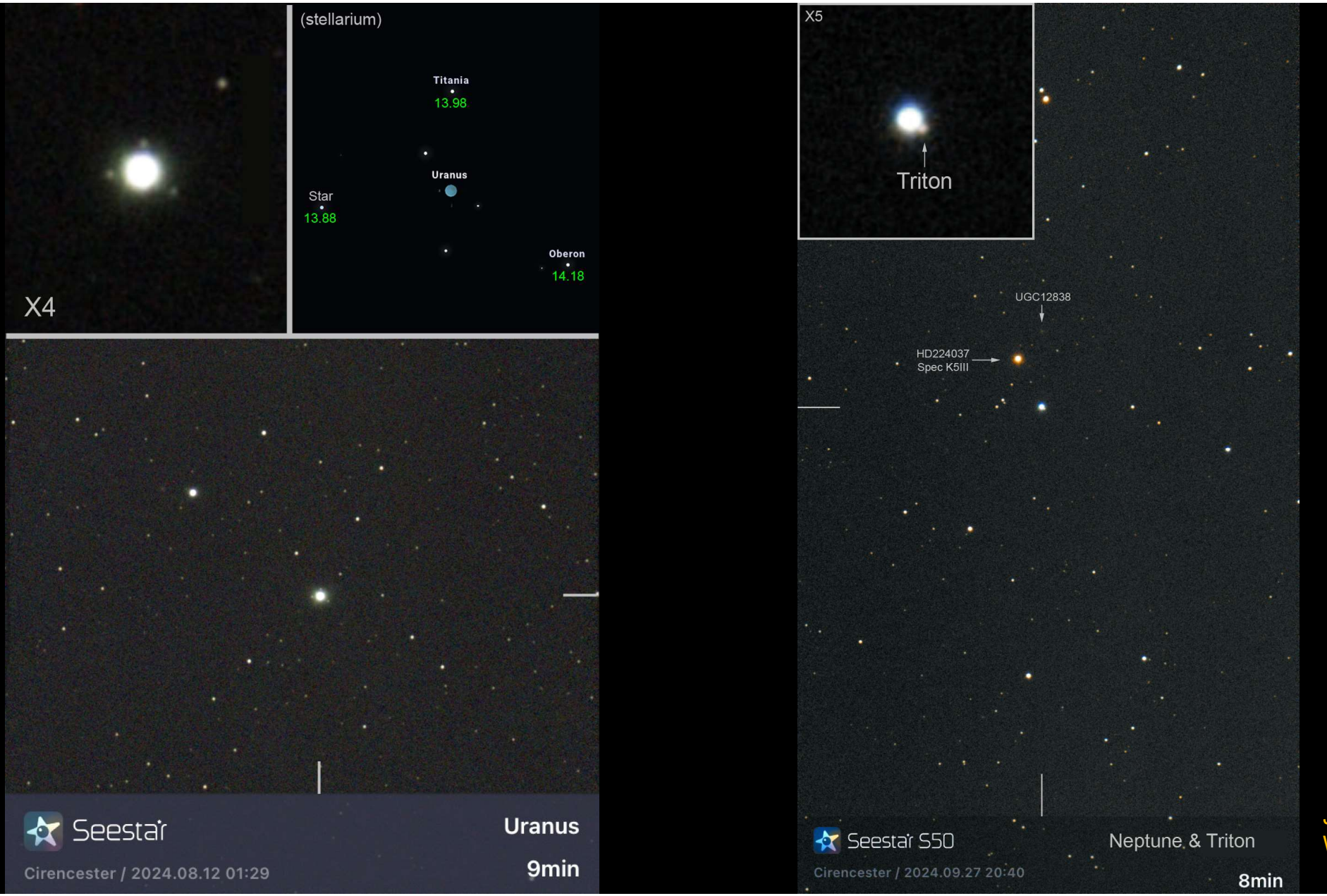
2118 UT

2149 UT





2022 Nov 25 - Anthony Wesley


X4
(stellarium)
Titania
13.98
Uranus
Star
13.88
Oberon
14.18
Seestar
Uranus
Cirencester / 2024.08.12 01:29
9min
X5
Triton
UGC12838
HD224037
Spec K5III
Seestar S50
Neptune & Triton
Cirencester / 2024.09.27 20:40
8min
James
Weightman