



What's Up?

September 1-30, 2025

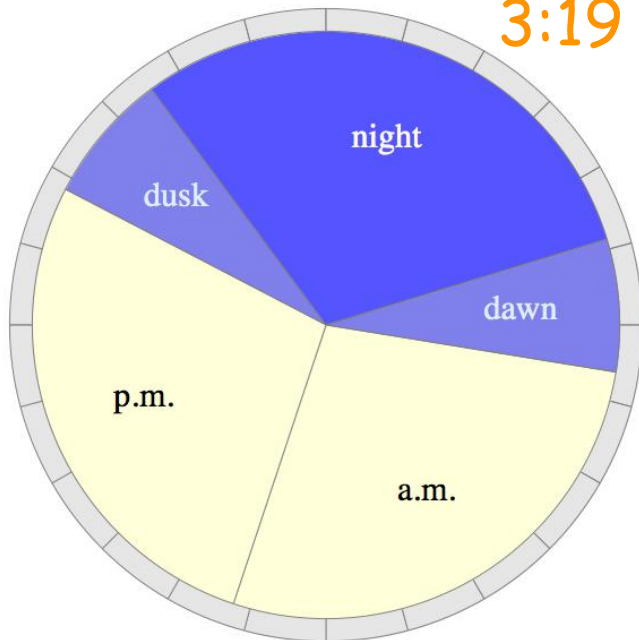
Made with the 2025 RASC Observer's Handbook, 2025
Night Sky Almanac, Sky Safari®, and Stellarium®

The Sun This Month

[Today's Solar Activity](#)

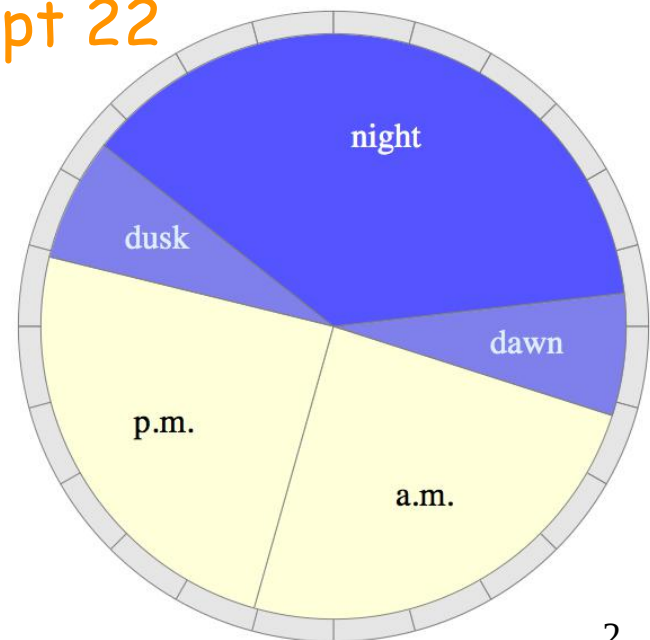
Date	Sunset	Dusk End	Darkness	Dawn Start	Sunrise	“Noon”	Sunlight	Max Altitude
Sept 1	7:50 p.m.	9:34 p.m.	7.3 h	4:52 a.m.	6:37 a.m.	1:14 p.m.	13.2 h	53.4°
Sept 30	6:56 p.m.	8:33 p.m.	9.0 h	5:33 a.m.	7:11 a.m.	1:04 p.m.	11.7 h	42.3°

Halifax Sept 1



Autumnal Equinox
3:19 p.m. ADT Sept 22

Halifax Sept 30



The Moon This Month

Date	Phase	English	Mi'kmaq
Sept 7	<i>Full Moon</i>	Mate Calling	Wikumkewiku's
Sept 8	Moon near Neptune and Saturn		
Sept 10	Moon at perigee (364,800 km)		
Sept 13	Moon near the Pleiades (M45)		
Sept 14	<i>Last Quarter</i>		
Sept 16	Moon near Jupiter		
Sept 19	Moon near Venus and Regulus		
Sept 21	<i>New Moon</i>	Animal Fattening	Wikewiku's
Sept 26	Moon at apogee (405,600 km)		
Sept 27	Moon near Antares and M4		
Sept 29	<i>First Quarter</i>		

View with 7x50 binoculars (FOV 7.1°)



8 September at 9:30 p.m.



13 September at 1:30 a.m.

View with 7x50 binoculars (FOV 7.1°)



16 September at 4:30 a.m.



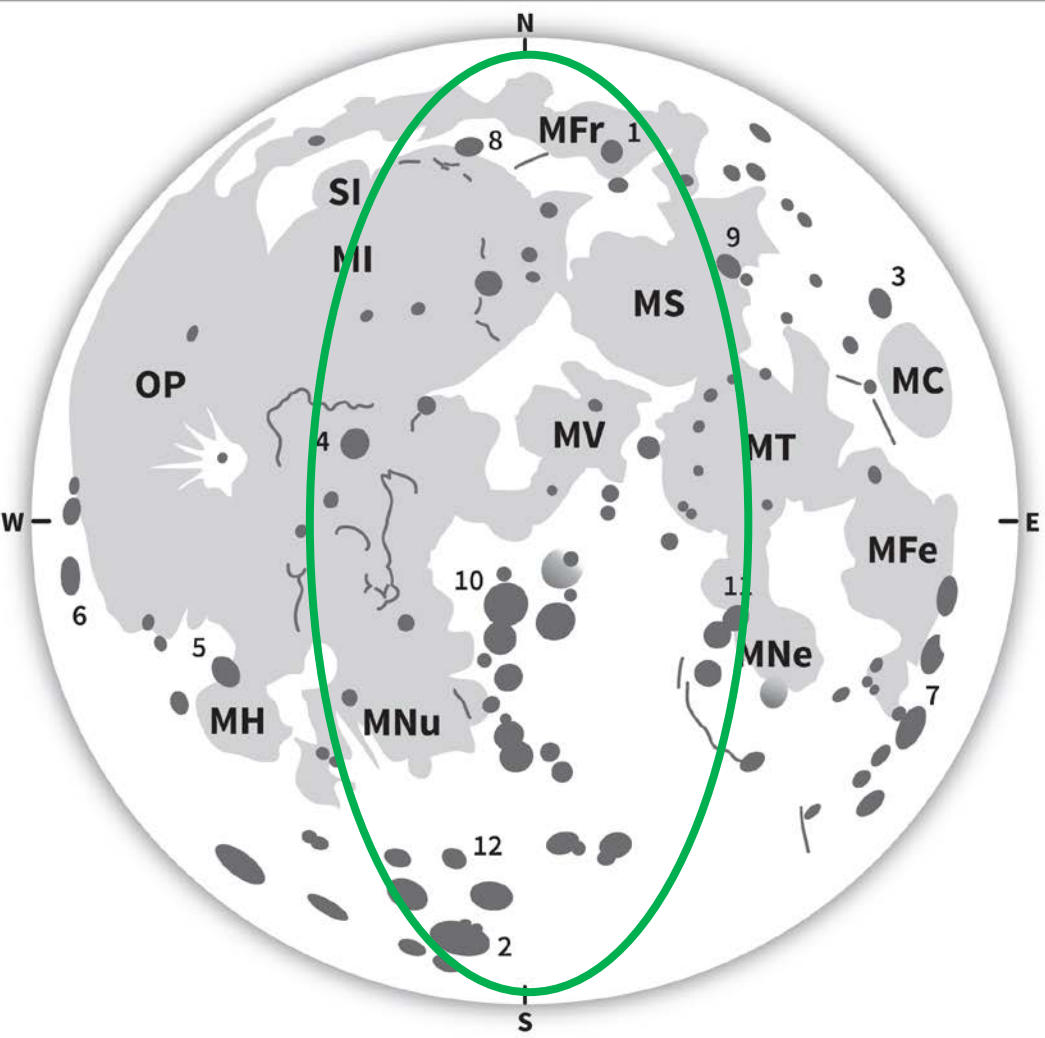
27 September at 8:00 p.m.

View with 15x70 binoculars (FOV 4.4°)

challenge



19 September at 5:30 a.m.



MARE

MC: Mare Crisium

MFe: Mare Fecunditatis

MFr: Mare Frigoris

MH: Mare Humorum

SI: Sinus Iridum

MI: Mare Imbrium

MNe: Mare Nectaris

MNu: Mare Nubium

MS: Mare Serenitatis

MT: Mare Tranquillitatis

MV: Mare Vaporum

OP: Oceanus Procellarum

September 27-30

The Moon in

Explore the Universe

challenge

observe 3 of each in binoculars

7

CRATERS		
1. Aristoteles	5. Gassendi	10. Ptolomaeus
2. Clavius	6. Grimaldi	11. Theophilus
3. Cleomedes	7. Petavius	12. Tycho
4. Copernicus	8. Plato	
	9. Posidonius	

Mare Orientale

challenge

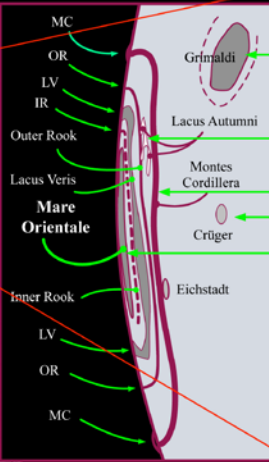


Mare Orientale

... this most astounding impact basin is only partially seen







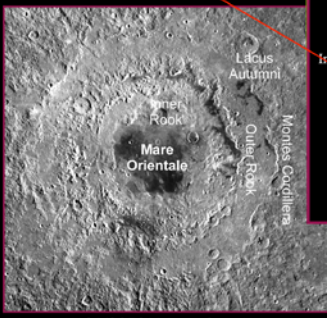


image: NASA/GSFC/Arizona State University

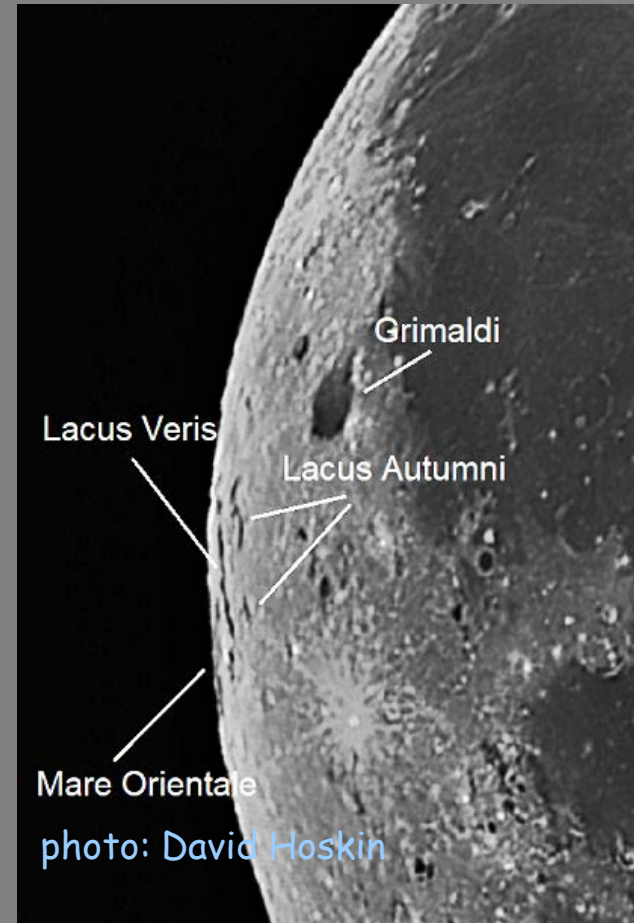
Mare Orientale
 Best seen in 2025
 the mornings around May 18, June 18,
 and July 16

A good viewing of Mare Orientale requires that the Moon be at or near maximum western libration. This happens on three, four, or five days in some, but not all months. Of course, it should not hide in the lunar night, which immediately eliminates fifteen days each month. The three mornings leading up to new Moon are also poor times because the waning thin crescent lies too close to the horizon to give a sharp enough image for a clear, meaningful view.

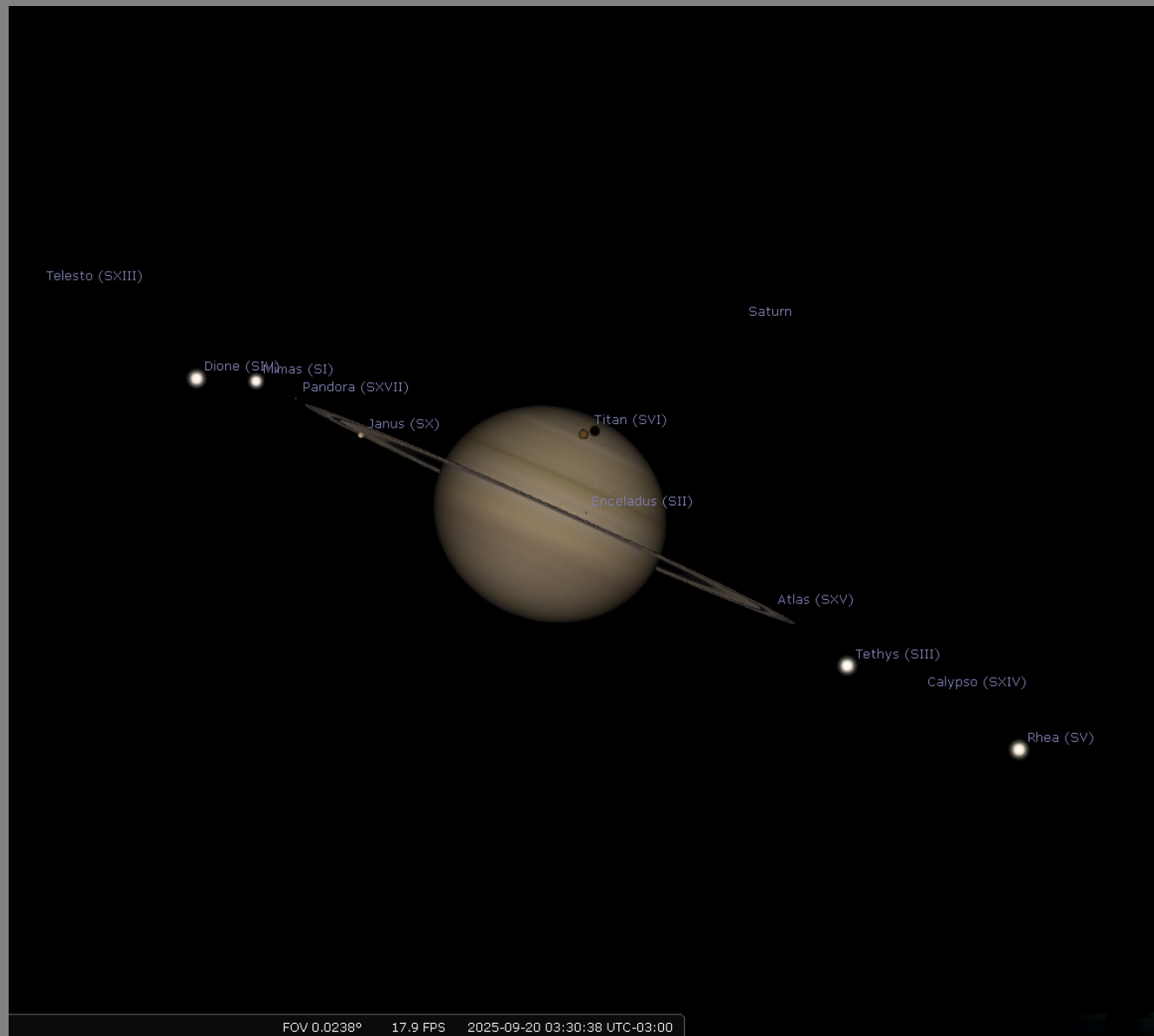
As a result, opportunities for studying Mare Orientale are infrequent, occurring on fewer than twenty days each year. Generally, four months running present three, four, or five good opportunities each, followed by a string of nine or ten months that present no suitable occasions for viewing it. And then there is the weather!

Identifying Orientale's fascinating features demands steady seeing and moderate magnification.

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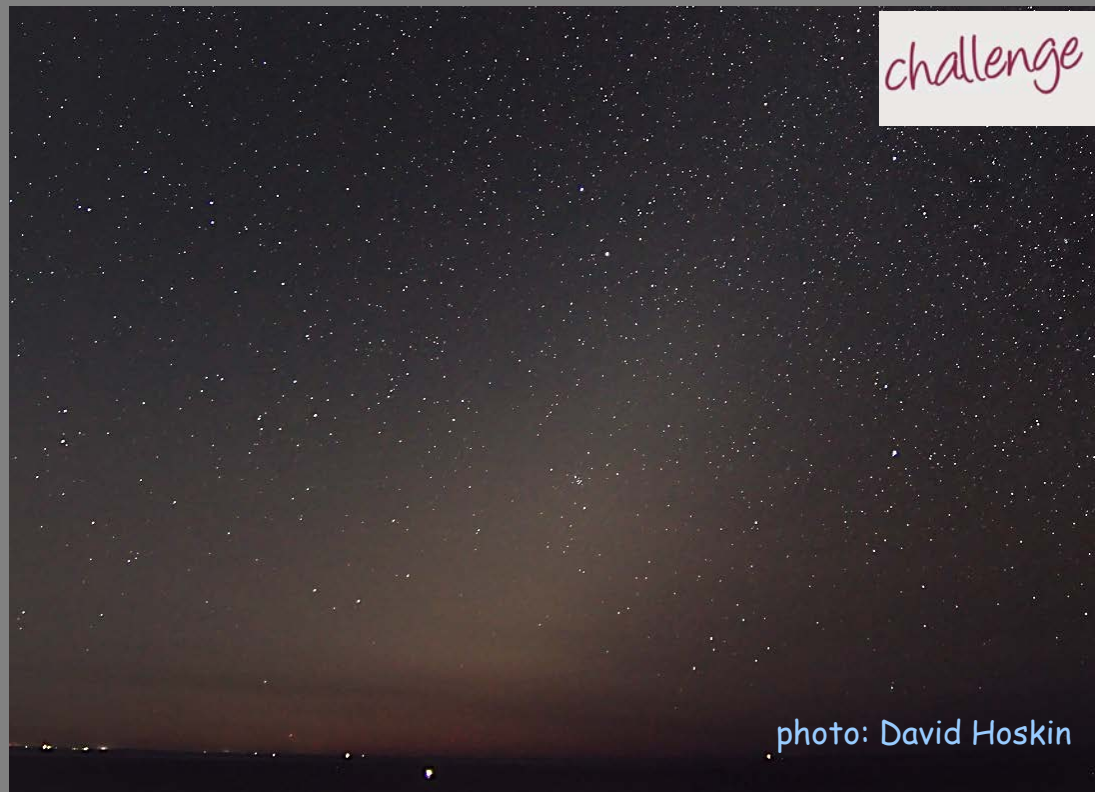
-look on the evening of September 8 for favorable western libration exposing Mare Orientale



Titan transit @3:30 a.m. on September 20

Zodiacal Light

- pyramid of light in the western sky just after the end of twilight (February, March) or in the eastern sky just before the start of morning twilight (September, October)
- best seen when the ecliptic is at a high angle relative to the horizon
- requires a moonless sky (September 15 to 26) and dark observing site
- dust concentrated in the plane of the ecliptic and towards the Sun reflects sunlight

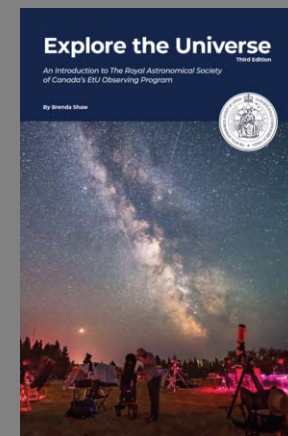




Explore the Universe:

Autumn Constellations

Pegasus
Andromeda
Cassiopeia
Perseus
Aries





Explore the Universe:

Autumn Stars

Ranking:

#35 Mirfak (N)

Hamal (N)

Alpheratz (N)

Algol

Schedar (N)

Markab

Sheratan

N = Navigation

all good for Syn Scan alignment

Explore the Universe: Autumn Deep-Sky Objects

The Double Cluster

Open star clusters NGC 869
and NGC 884 in Perseus
Visible to the unaided eye

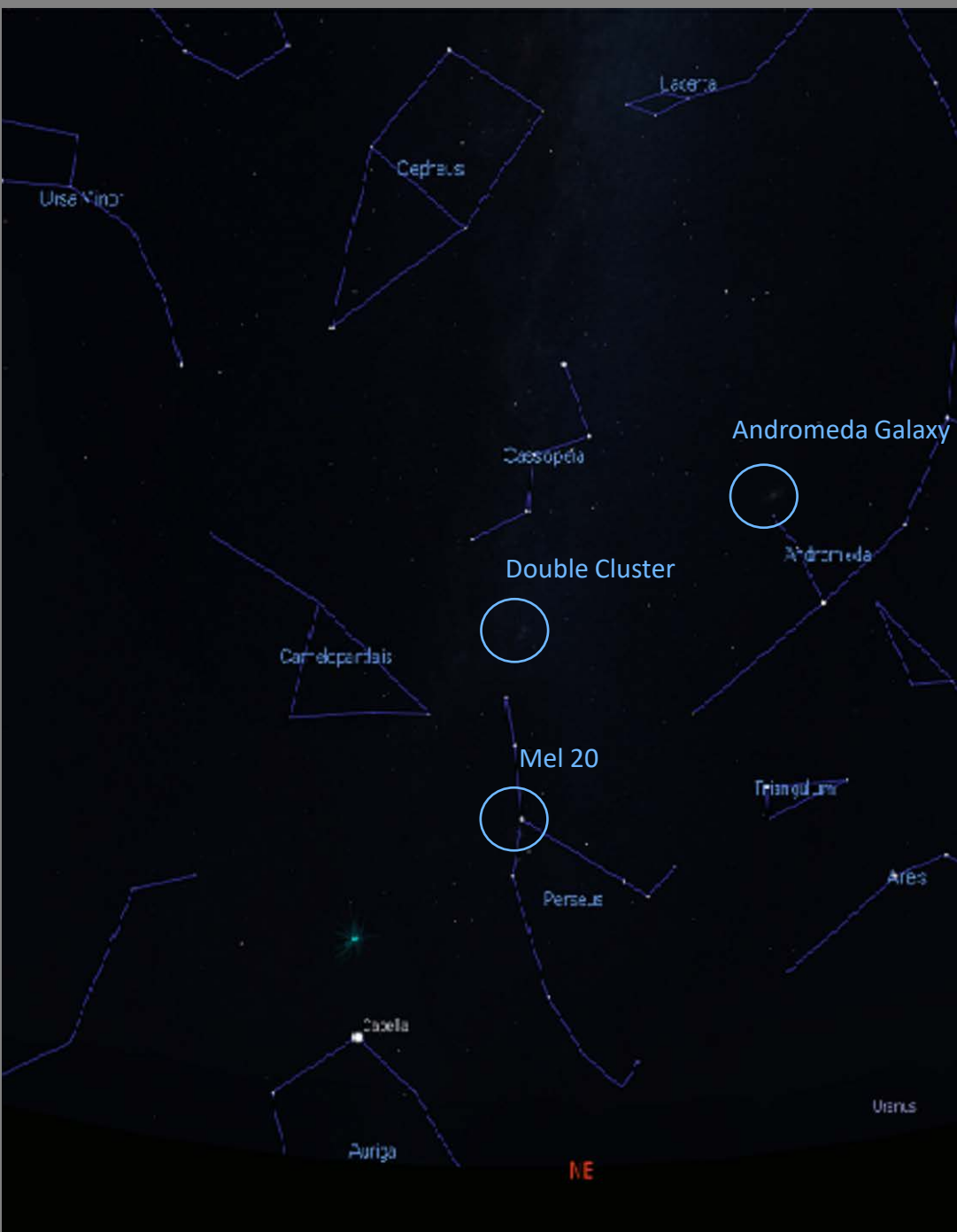


photo: David Hoskin



Explore the Universe: Autumn Double Star

16 Cygni A and B (6.0, 6.2, 40")

Located near Iota and Theta Cygni

Yellow dwarf stars 69 LY from Earth

An exoplanet orbits 16 Cygni B



photo: en.wikipedia.org

Questions?

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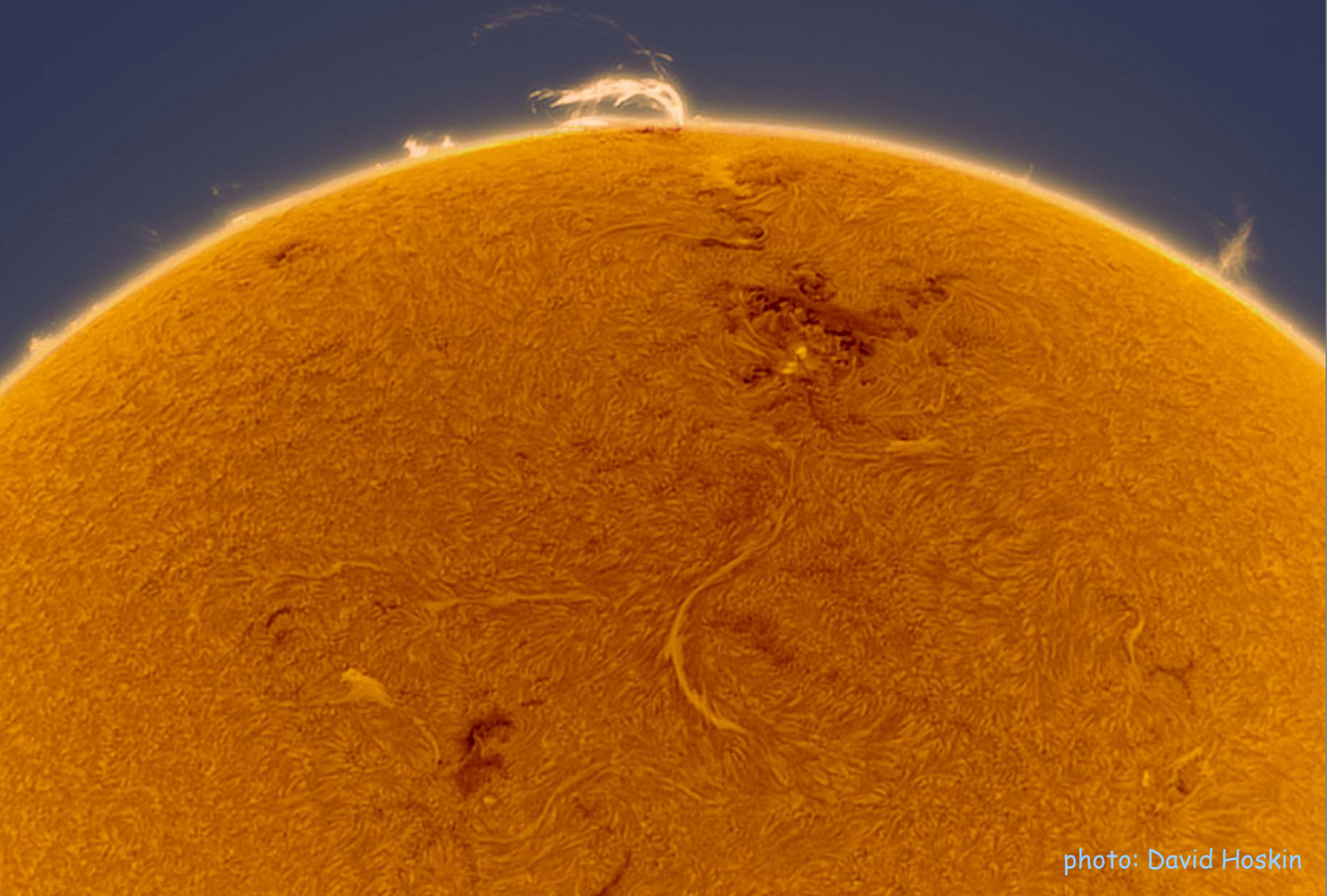


photo: David Hoskin