



What's Up?

September 1-30, 2024

Made with the 2024 RASC Observer's Handbook, 2024
Night Sky Almanac, Sky Safari®, and Stellarium®

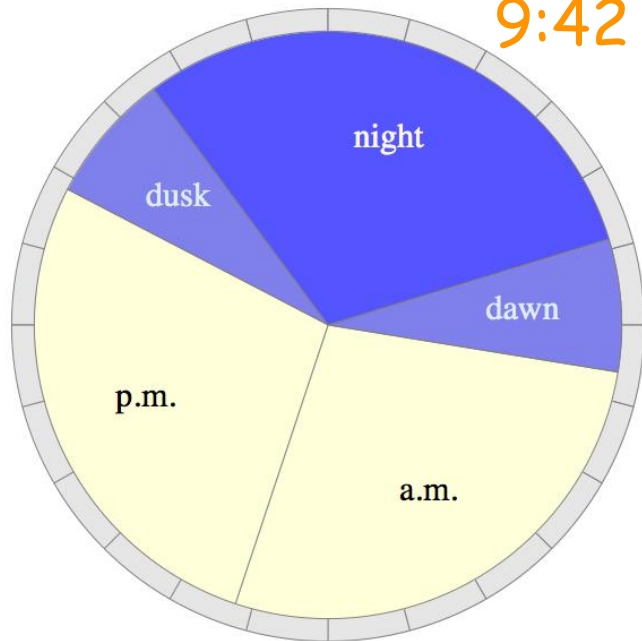
photo: David Hoskin

The Sun This Month

Today's Solar Activity

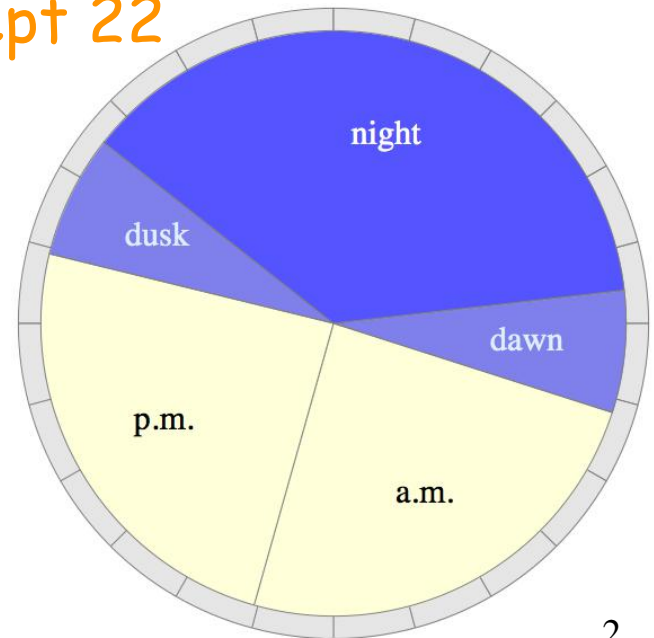
Date	Sunset	Dusk End	Darkness	Dawn Start	Sunrise	“Noon”	Sunlight	Max Altitude
Sept 1	7:49 p.m.	9:34 p.m.	7.3 h	4:52 a.m.	6:37 a.m.	1:14 p.m.	13.2 h	53.3°
Sept 30	6:55 p.m.	8:32 p.m.	9.0 h	5:34 a.m.	7:11 a.m.	1:04 p.m.	11.7 h	42.2°

Halifax Sept 1



Autumnal Equinox
9:42 a.m. ADT Sept 22

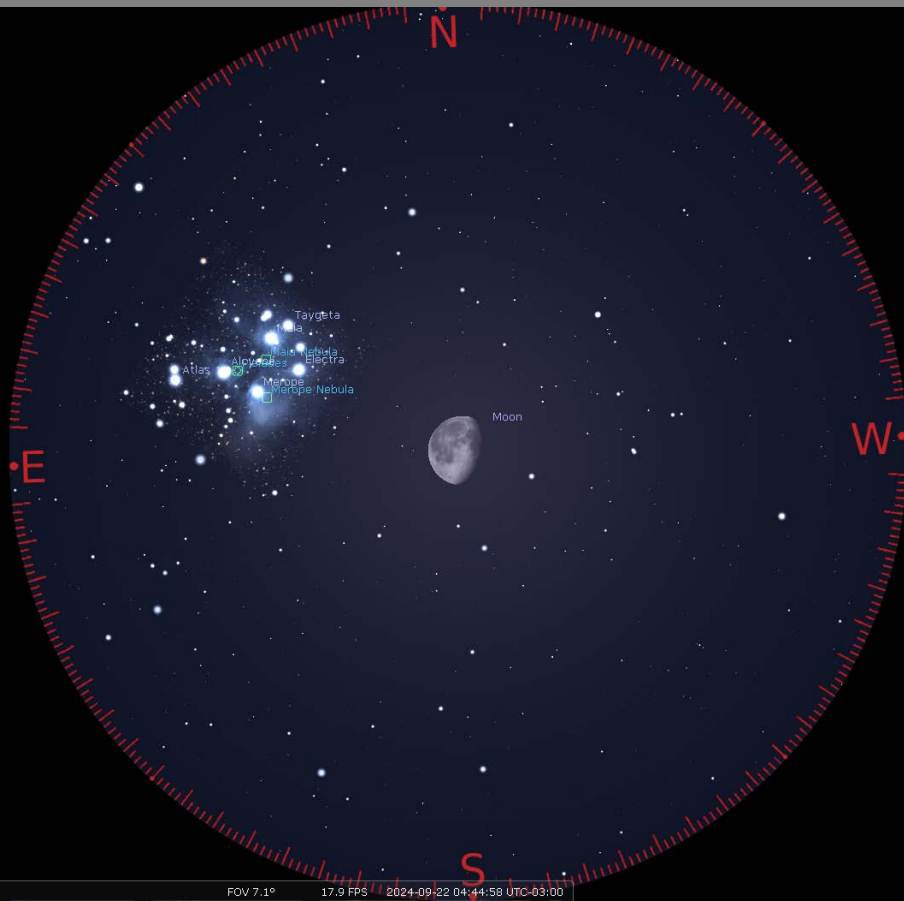
Halifax Sept 30



The Moon This Month

Date	Phase	English	Mi'kmaq
Sept 3	<i>New Moon</i>	Mate Calling	<u>Wikumkewiku's</u>
Sept 5	Moon near Venus		
Sept 5	Moon at apogee (406,200 km)		
Sept 11	<i>First Quarter</i>		
Sept 16	Moon near Saturn		
Sept 17	<i>Full Moon</i>		
Sept 17	Partial lunar eclipse		
Sept 18	Moon at perigee (357,300 km)		
Sept 22	Moon near M45		
Sept 24	<i>Last Quarter</i>		
Sept 25	Moon near Mars		
Sept 27	Moon near M44		

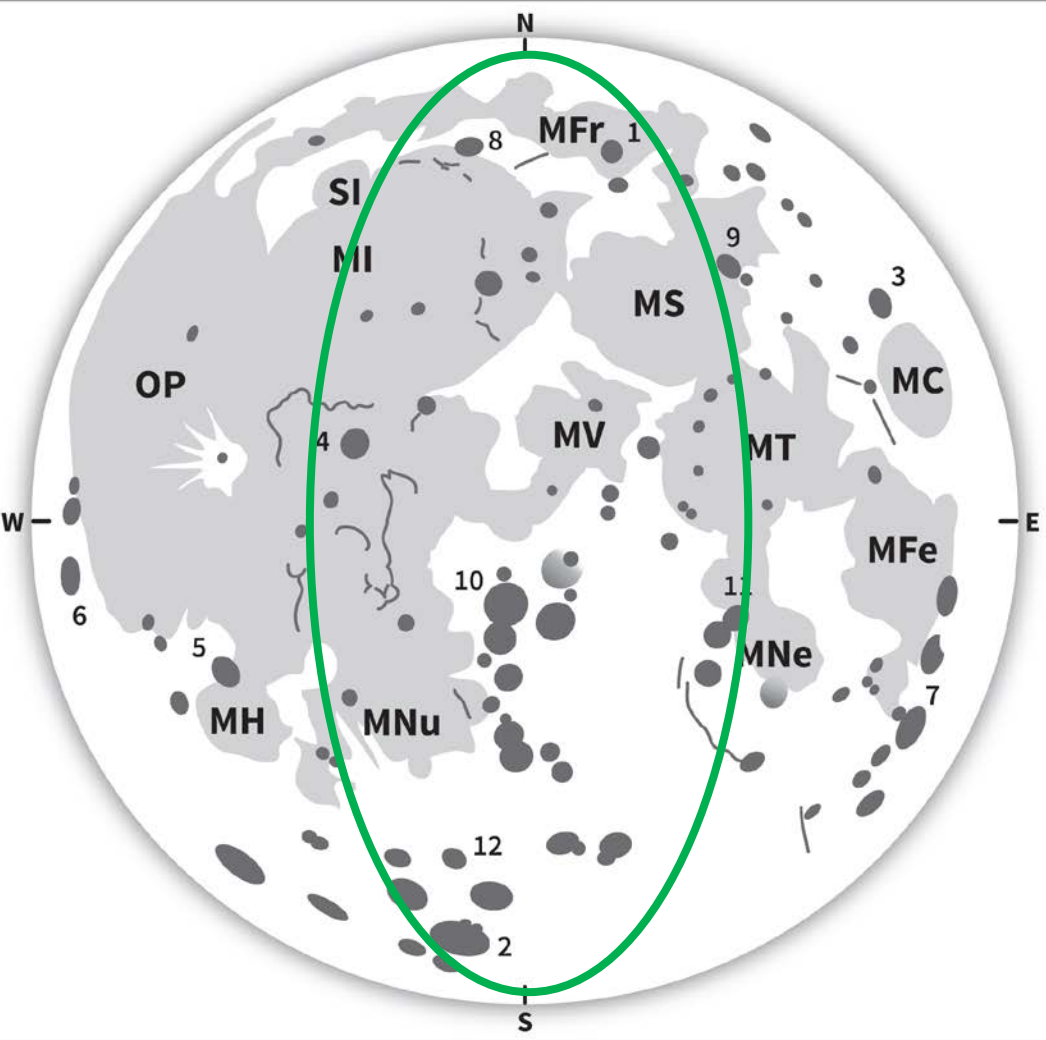
View with 7x50 binoculars (FOV 7.1°)



22 September at 4:45 a.m.



27 September at 4:45 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 9-13

The Moon in

Explore the Universe

observe 3 of each in binoculars⁵

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 | |

challenge

The Planets in September

Mercury-visible low in the E (mag. 0.4) before sunrise at the start of the month, brightens until mid month

Venus -low in the W (mag. -3.9) after sunset
-close to the waxing crescent Moon on 5 September

Mars -visible in Taurus (mag. 0.7) at the start of the month
-moves into Gemini on 5 September
-passes near M35 on 7 and 8 September

challenge

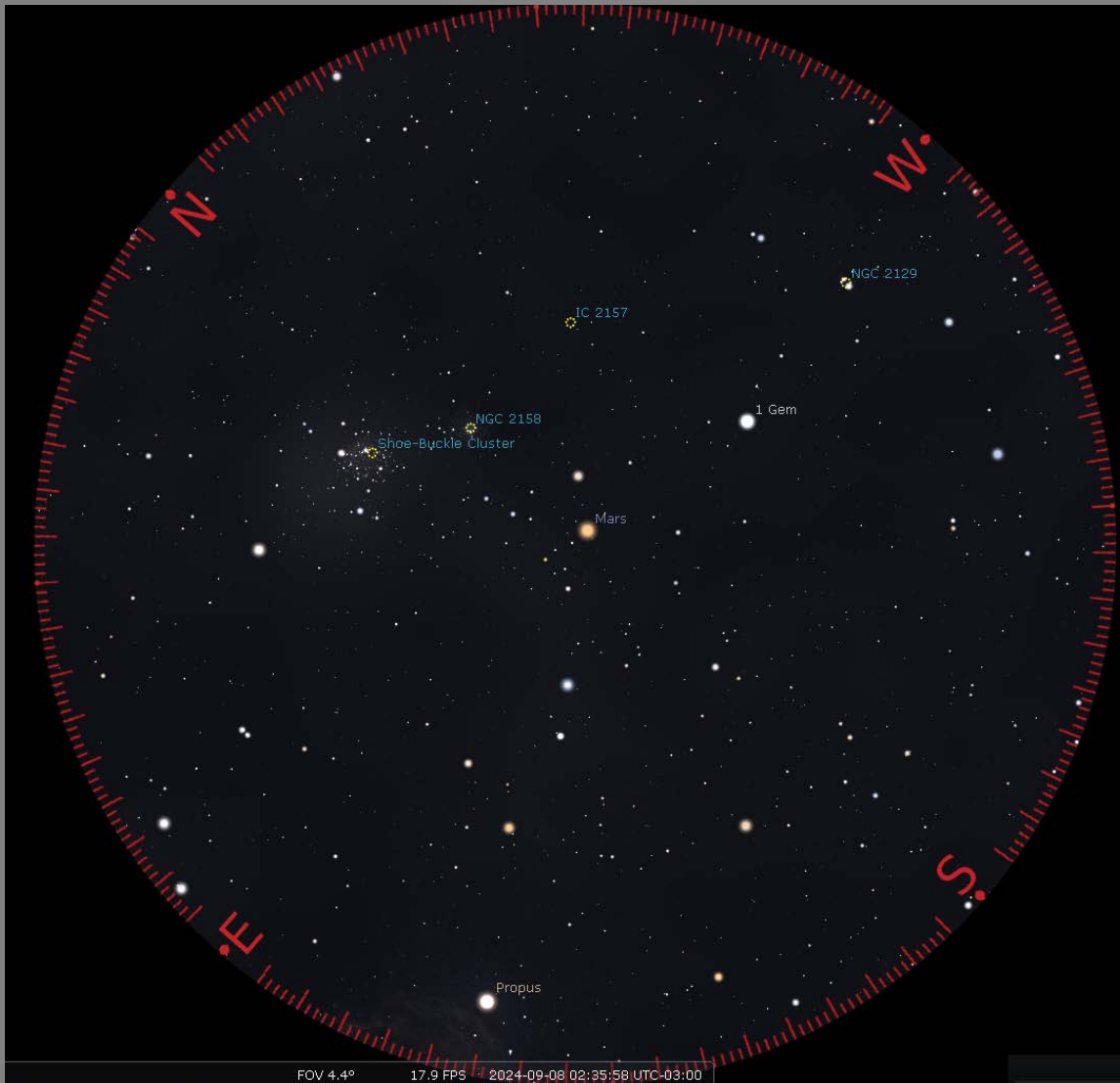
Jupiter -prominent in Taurus (mag. -2.3), rising after midnight

Saturn -rises in the E (mag. 0.6) after sunset
-achieves opposition on night of 7-8 September
-close to the waxing gibbous Moon on 16 September

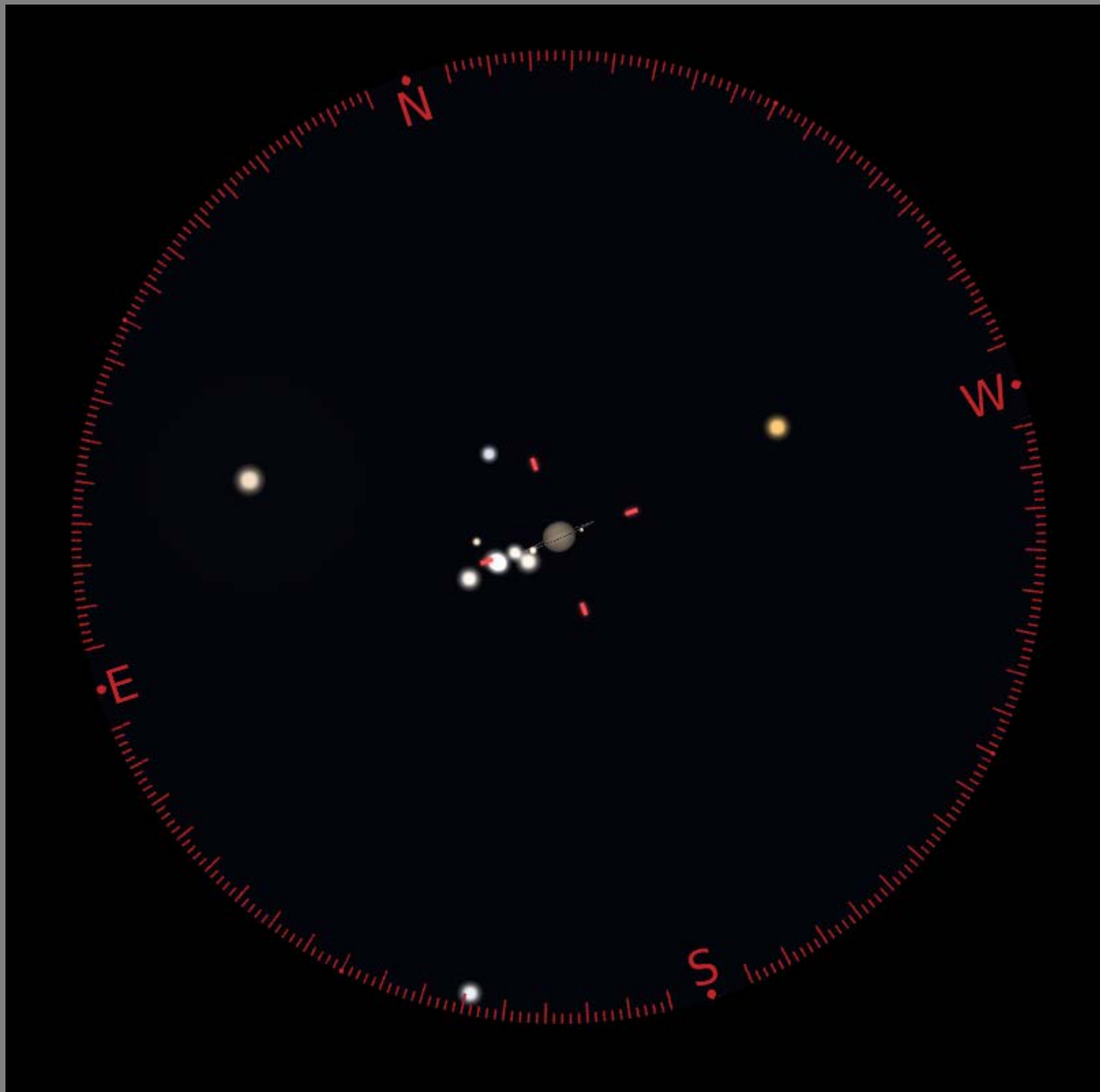
Uranus -visible in Taurus (mag. 5.7) after midnight

Neptune-visible for most of the night in Pisces (mag. 7.8)
-achieves opposition on 21 September

View with 15x70 binoculars (FOV 4.4°)



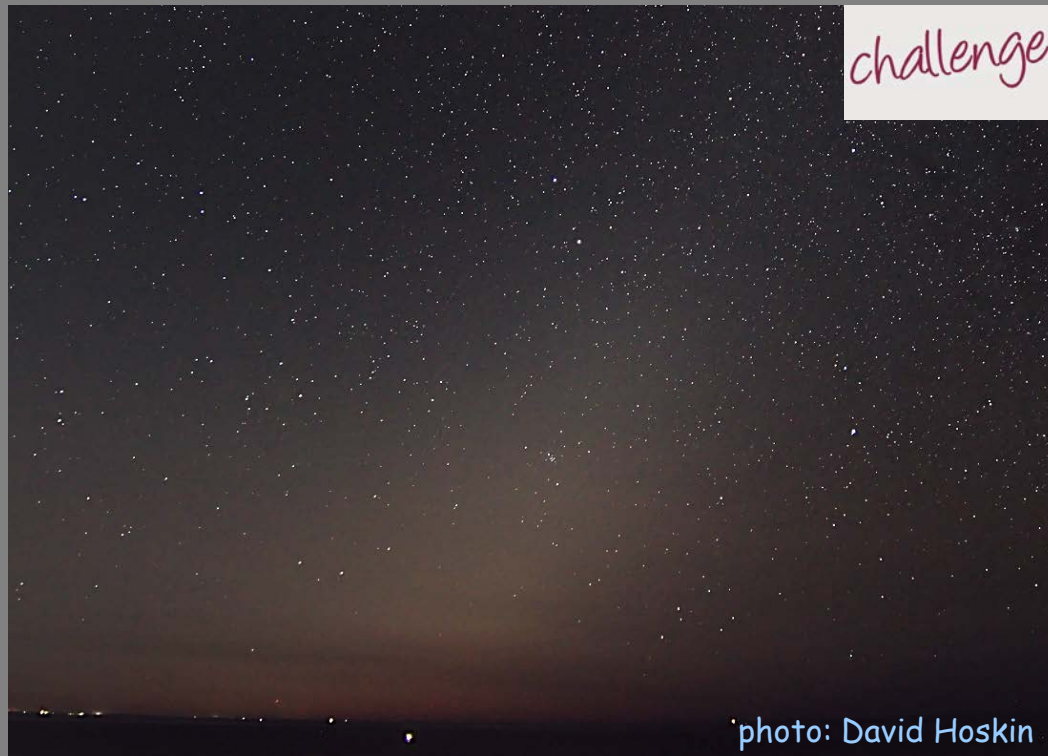
Mars passes near open star cluster M35 in Gemini
7 and 8 September at 2:30 a.m.



Saturn at opposition on night of 7-8 September
9mm EP with 2x Barlow and 200mm SCT

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 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



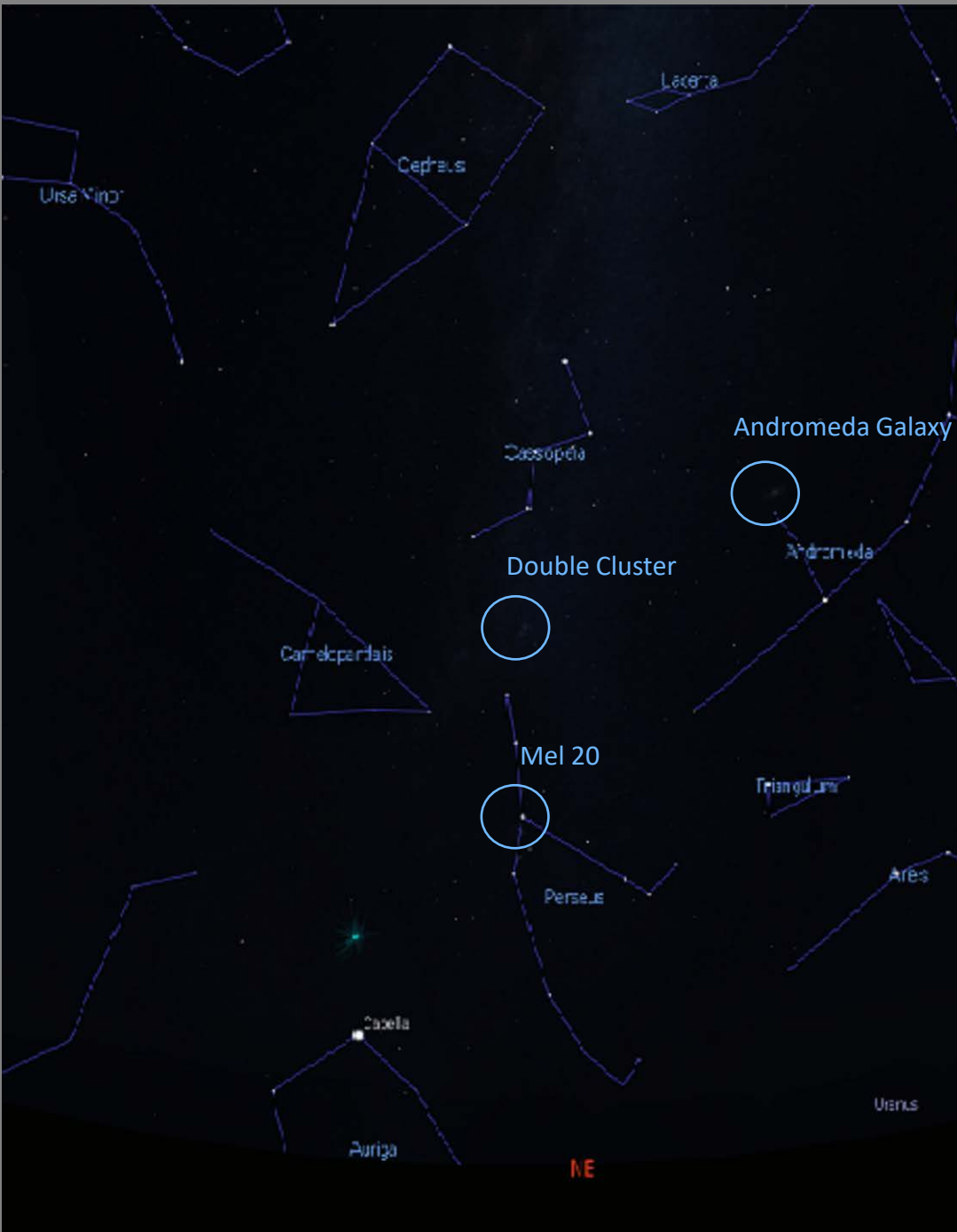
Explore the Universe: Autumn Deep-Sky Objects

The Double Cluster

Open star clusters NGC 869

and NGC 884 in Perseus

Visible to the unaided eye



challenge



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

challenge



photo: en.wikipedia.org

Questions?

observing@halifax.rasc.ca

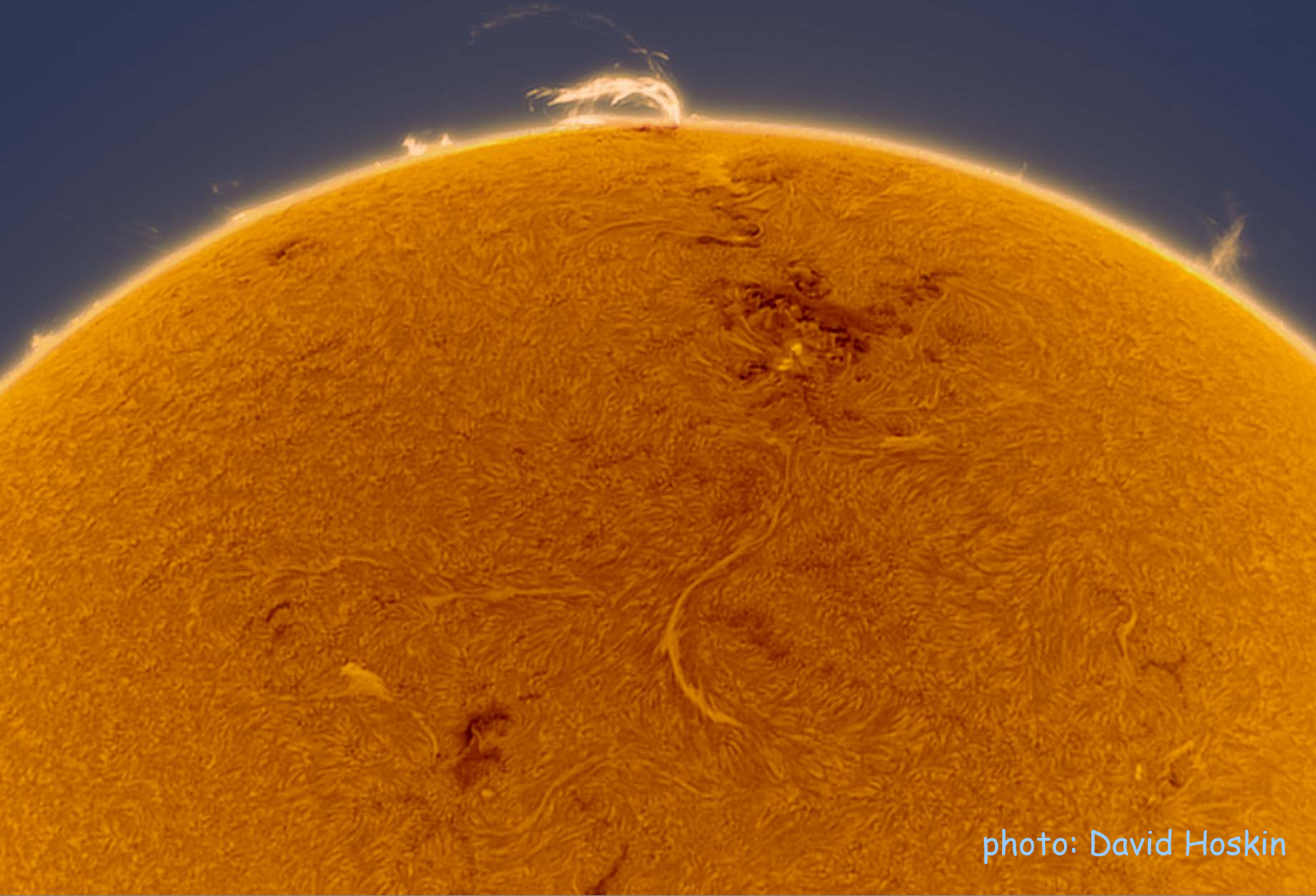


photo: David Hoskin