

What's Up?

October 1-31, 2025

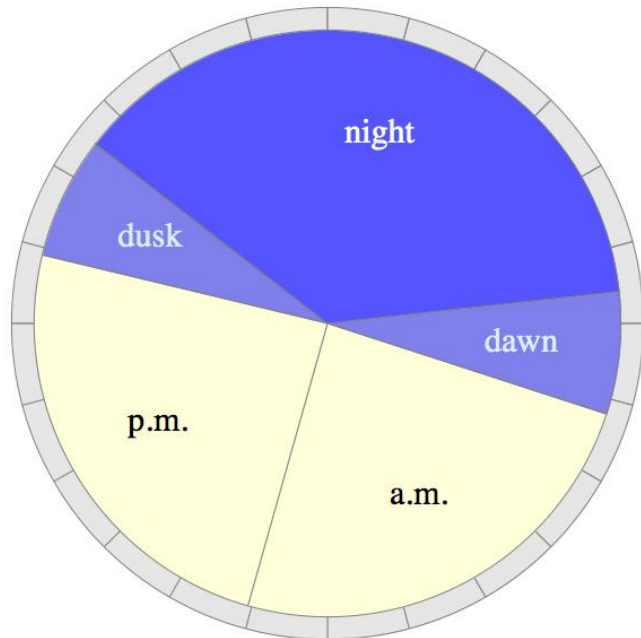
Made with the 2025 RASC Observer's Handbook, 2025
Night Sky Almanac, Sky Safari®, and Stellarium®

The Sun This Month

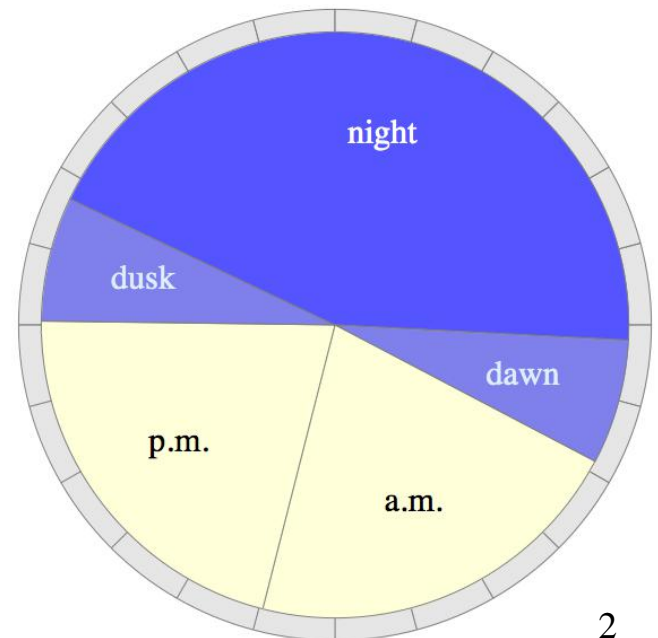
[Today's Solar Activity](#)

Date	Sunset	Dusk End	Darkness	Dawn Start	Sunrise	“Noon”	Sunlight	Max Altitude
Oct 1	6:54 p.m.	8:31 p.m.	9.1 h	5:35 a.m.	7:12 a.m.	1:03 p.m.	11.7 h	41.9°
Oct 31	6:04 p.m.	7:42 p.m.	10.5 h	6:12 a.m.	7:51 a.m.	12:57 p.m.	10.2 h	31.0°

Halifax Oct 01



Halifax Oct 31



The Moon in October

Date (AST)	Phase	English	Mi'kmaq
Oct 5-6	Moon near Saturn		
Oct 7	<i>Full Moon</i>	Mate Calling	Wikumkewiku's
Oct 8	Moon at perigee (359,800 km)		
Oct 9	Moon near the Pleiades (M45)		
Oct 13	<i>Last Quarter</i>		
Oct 14	Moon near Jupiter		
Oct 19	Moon near Venus		
Oct 21	<i>New Moon</i>	Animal Fattening	Wikewiku's
Oct 21	Orionid Meteor Shower Peak		
Oct 23	Moon at apogee (406,400 km)		
Oct 24	Moon near Antares and M4		
Oct 29	<i>First Quarter</i>		



Waxing gibbous Moon near Saturn, Oct 5 @ 10:20 p.m.

15x70 binoculars (FOV 4.4°)



Waning gibbous Moon near M45, Oct 9 @ 10:20 p.m.
15x70 binoculars (FOV 4.4°)



Waning crescent Moon near Jupiter, Oct 14 @ 1:23 a.m.
7x50 binoculars (FOV 7.1°)

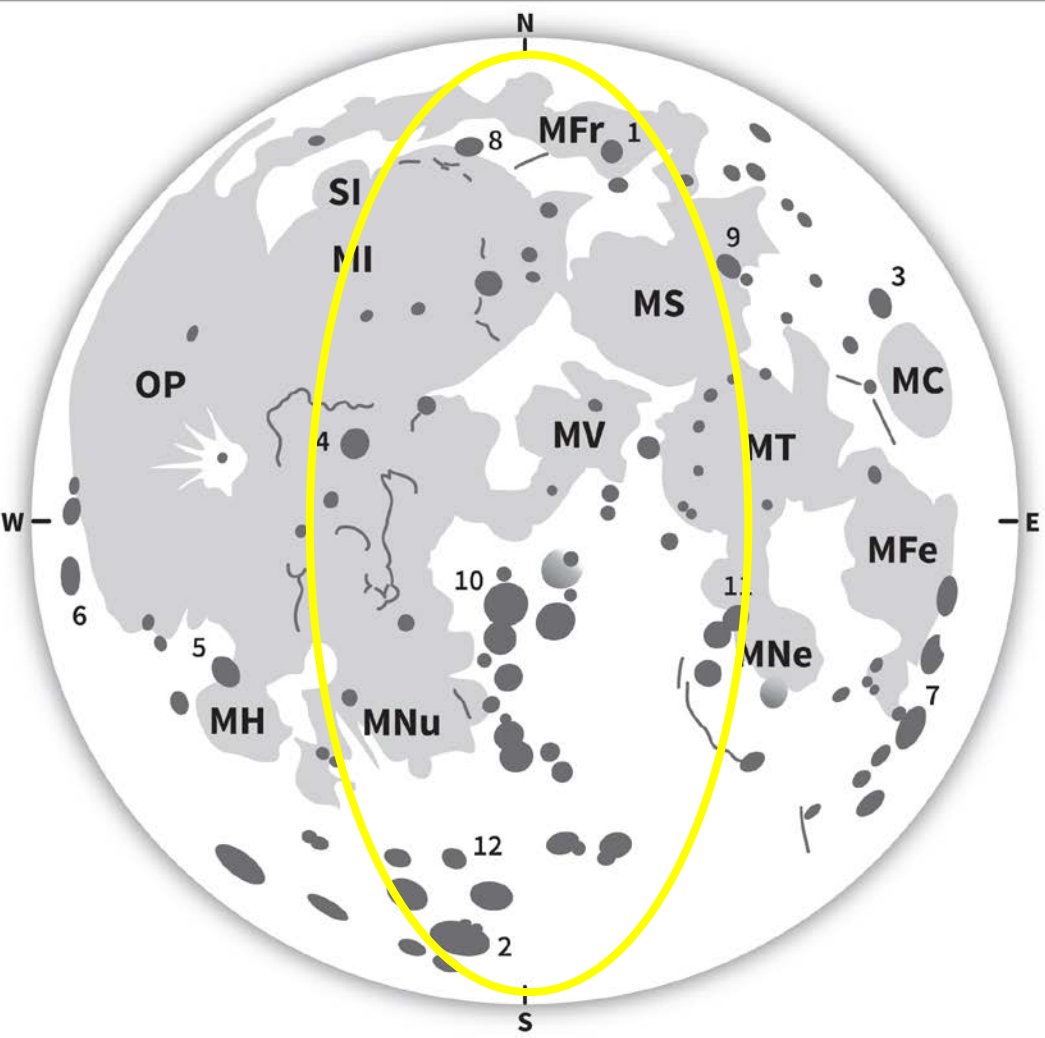
7x50 binoculars (FOV 7.1°)



Waning crescent Moon near Venus, Oct 19 @ 6:30 a.m.



Thin crescent Moon near Antares and M4, Oct 24 @ 18:45 p.m.
7x50 binoculars (FOV 7.1°)



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

October 27-31

The Moon in

Explore the Universe

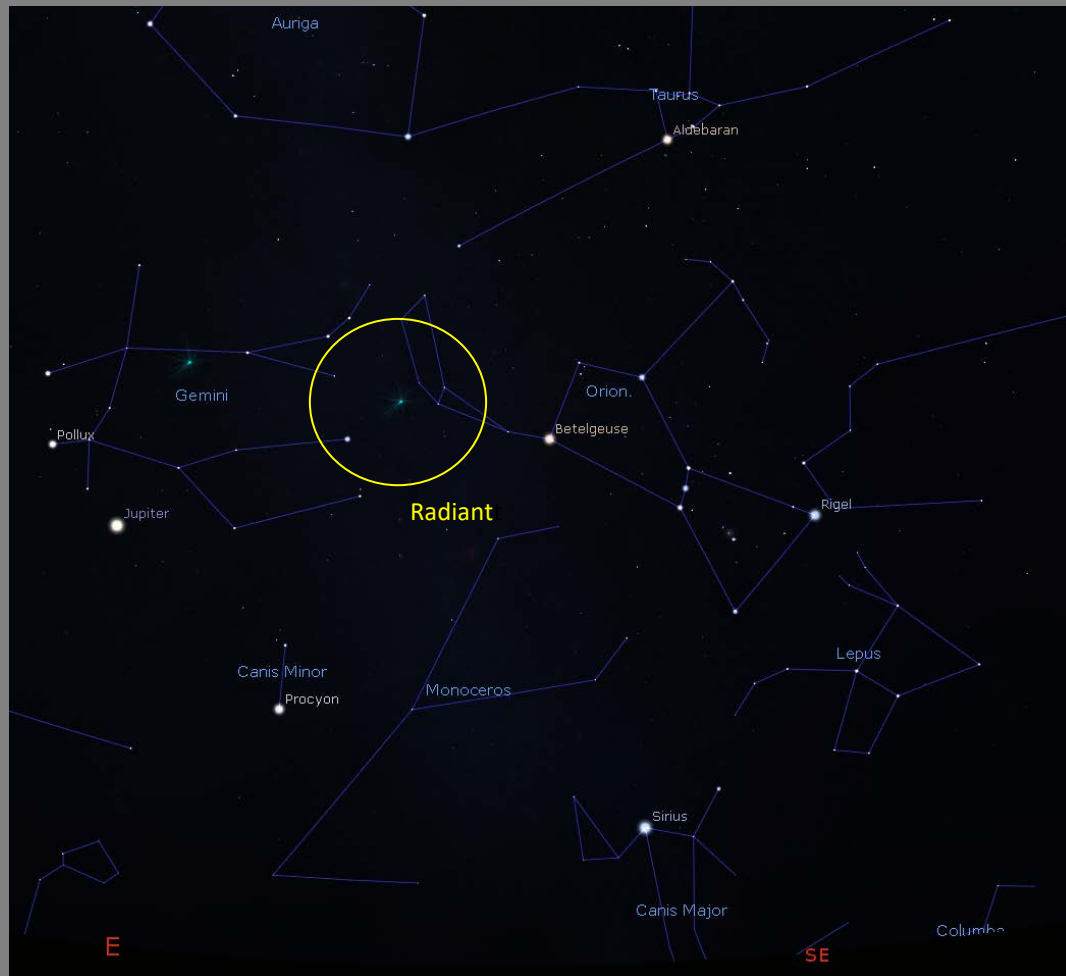
observe 3 of each in binoculars⁹

challenge

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 | |

Orionids Meteor Shower



Peaks October 21

20-30 meteors per hour

Source is debris from Comet

1P/Halley

Best between midnight and dawn

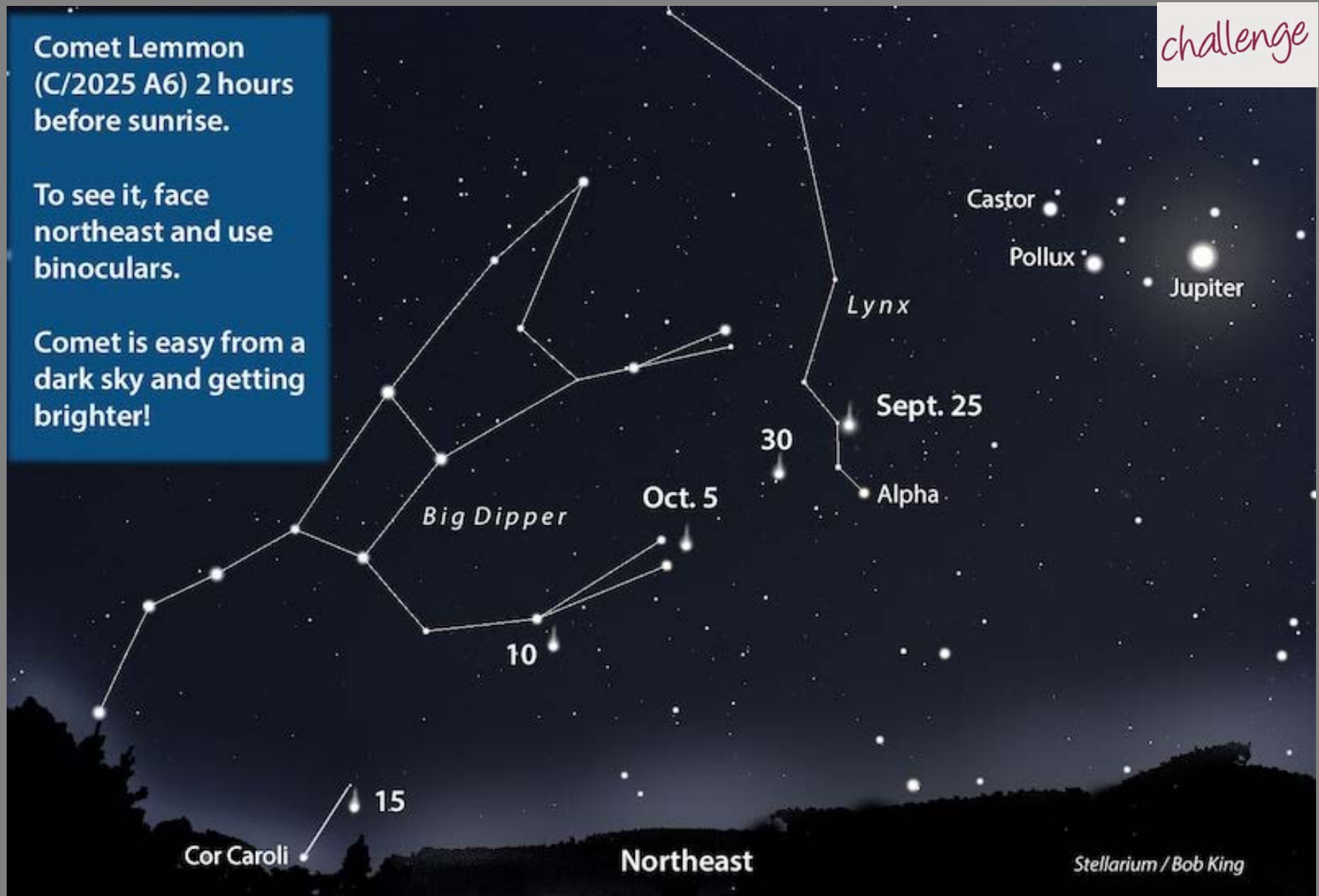
Comet C/2025 A6 (Lemmon)

challenge

Comet Lemmon
(C/2025 A6) 2 hours
before sunrise.

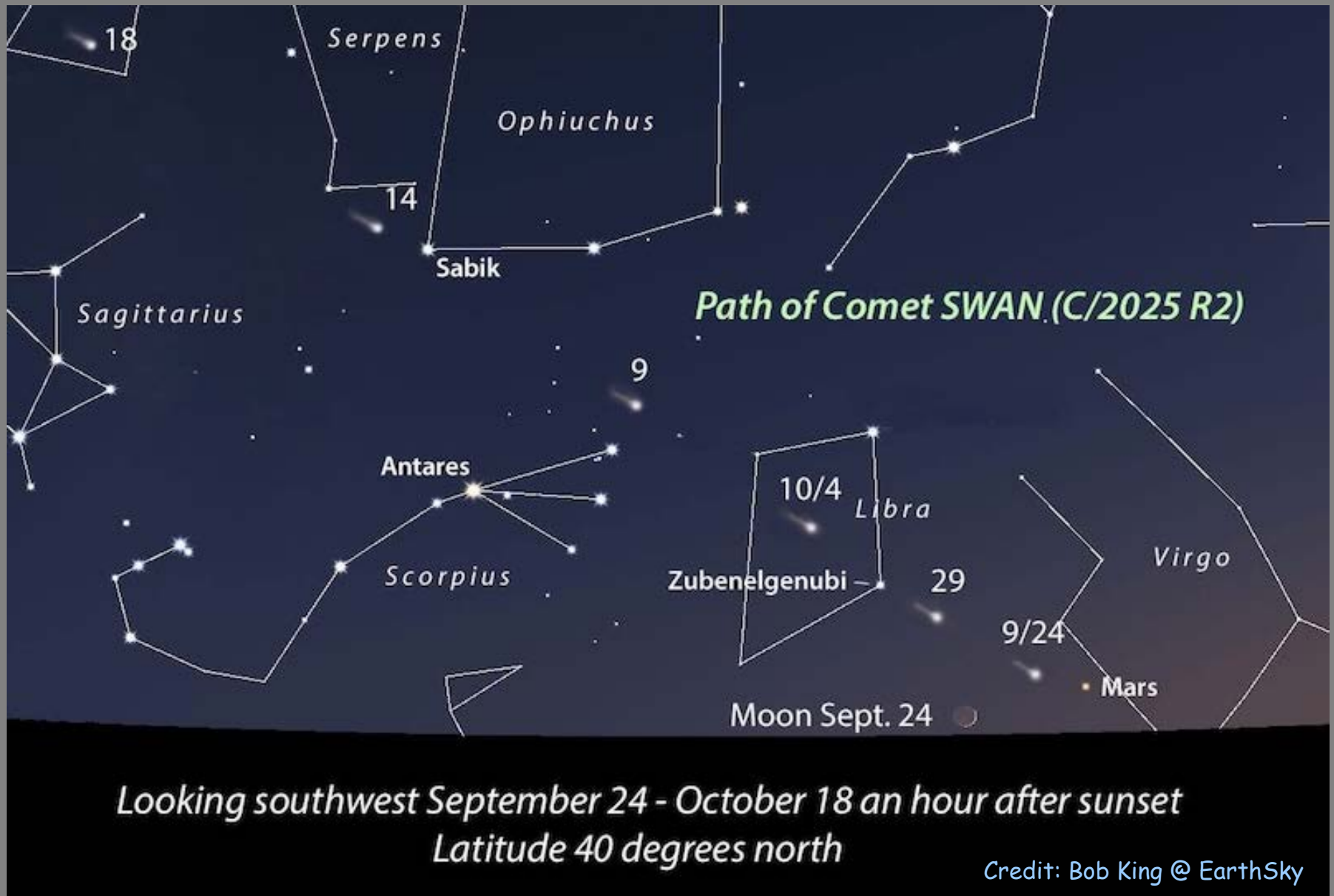
To see it, face
northeast and use
binoculars.

Comet is easy from a
dark sky and getting
brighter!



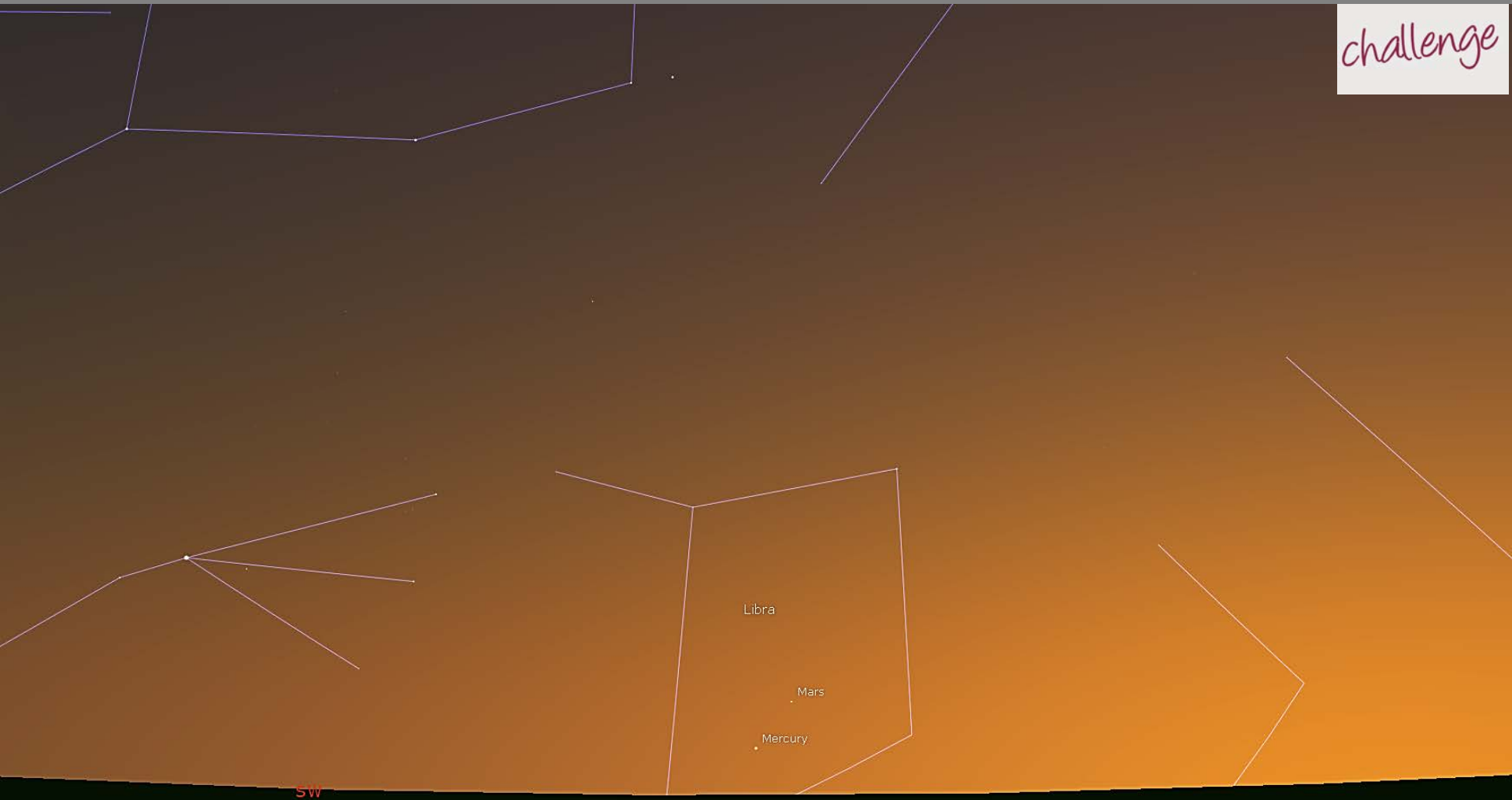
Maximum predicted magnitude 4.8

Comet C/2025 R2 (SWAN)



Maximum predicted magnitude 9.1

challenge

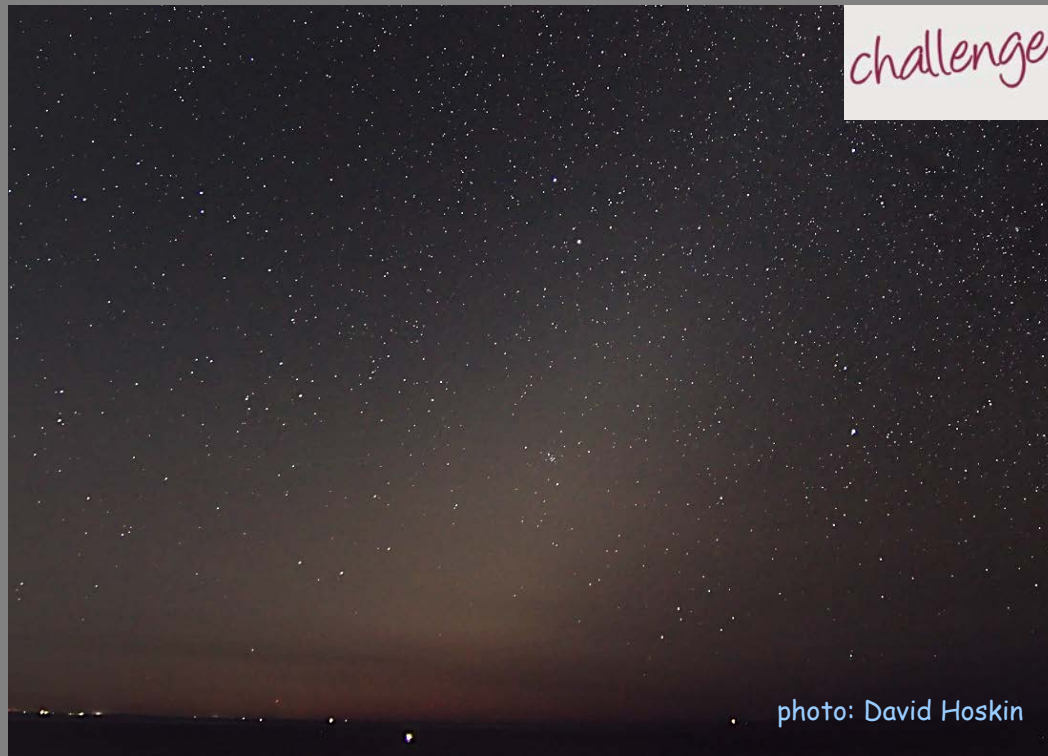


Mercury-Mars conjunction just after sunset

@ 6:50 p.m on October 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)
- dust concentrated in the plane of the ecliptic and towards the Sun reflects sunlight
- best seen at a dark observing site on a moonless night when the ecliptic is at a high angle relative to the horizon (Oct 20-26 @ 5:30-6:00 a.m. recommended)

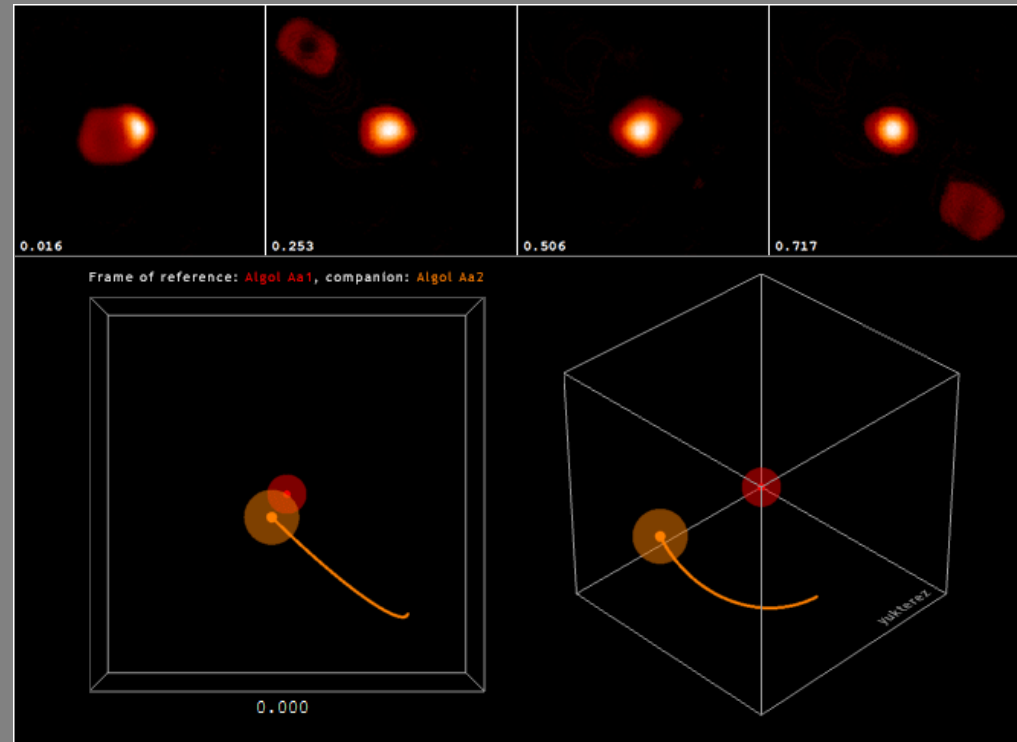
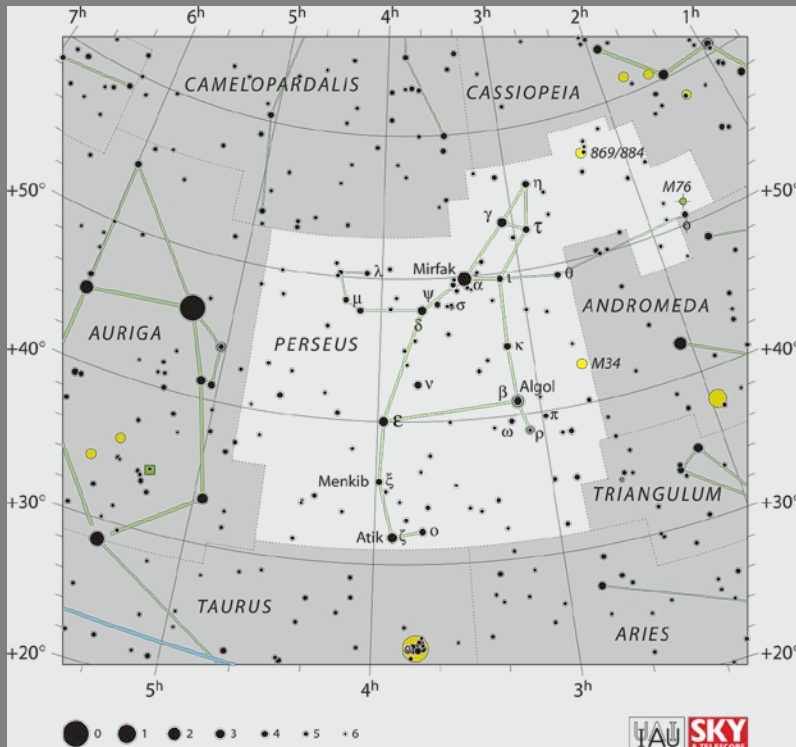
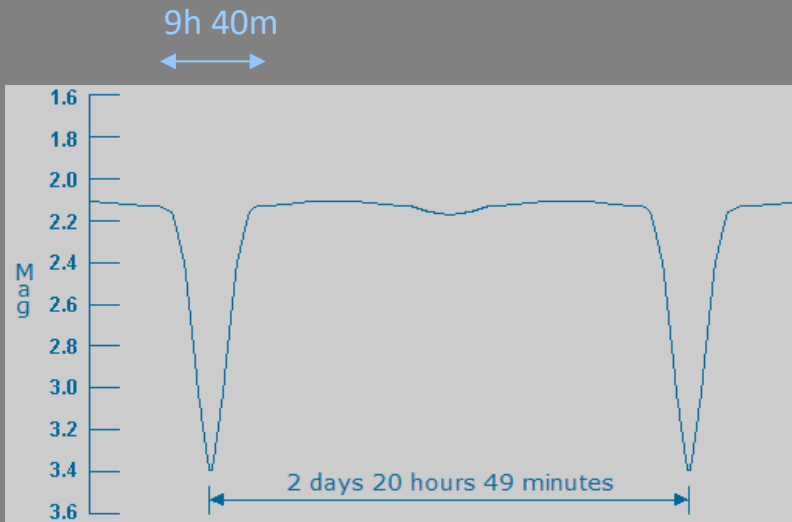


challenge

Algol (β Persei)

Oct 15 minimum 9:30 p.m. (mag. 3.2)

Oct 16 maximum 2:20 a.m. (mag. 2.2)



astrophysical.space/algol.php

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

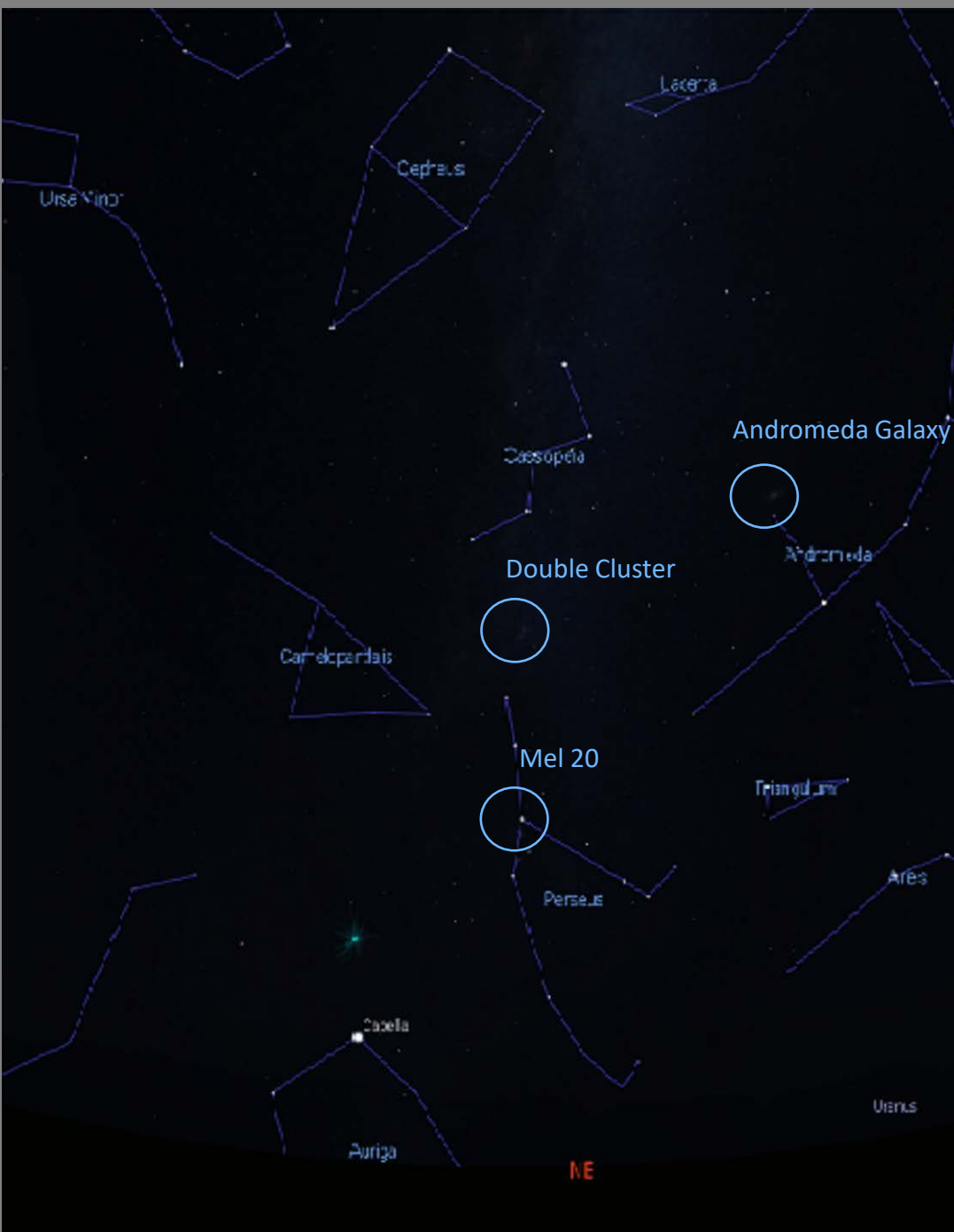
all good for Syn Scan alignment

Explore the Universe: Autumn Deep-Sky Objects

Melotte 20 (Alpha Persei Cluster)

Open star cluster in Perseus

Mirfak is most luminous member



challenge





Explore the Universe: Double Star

$\alpha 1$ & $\alpha 2$ Capricorni (4.4, 3.7, 378")

Wide binocular optical double

$\alpha 2$ Cap (Algedi) is a yellow giant

$\alpha 1$ Cap (Prima Giedi) is a yellow
supergiant



Questions?

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photo: David Hoskin