



# What's Up?

July 1-31, 2024

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

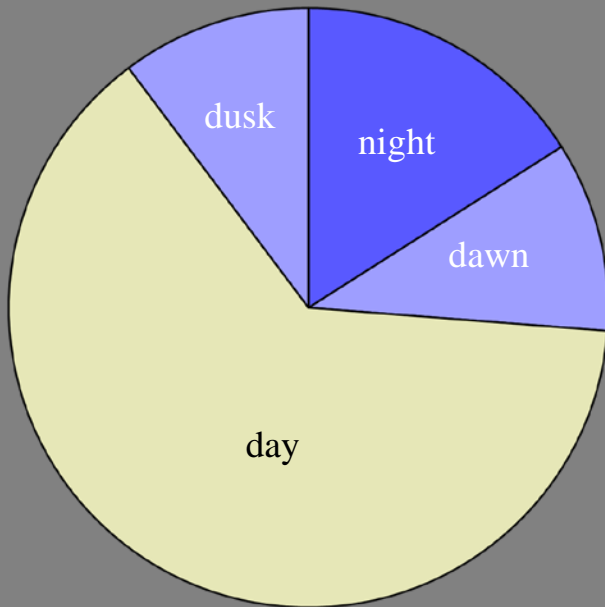
photo: David Hoskin

# The Sun This Month

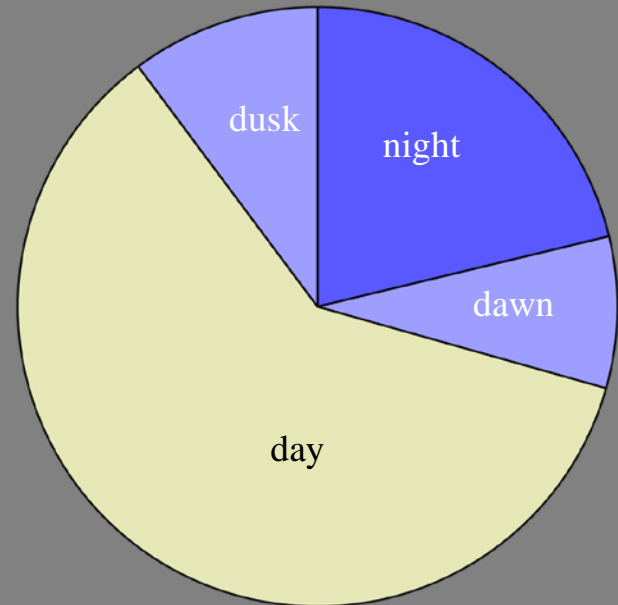
Today's Solar Activity

Date	Sunset	Dusk End	Darkness	Dawn Start	Sunrise	“Noon”	Sunlight	Max Altitude
July 1	9:03 p.m.	11:30 p.m.	3.9 h	3:05 a.m.	5:33 a.m.	1:18 p.m.	15.5 h	68°
July 31	8:40 p.m.	10:44 p.m.	5.2 h	3:55 a.m.	6:00 a.m.	1:20 p.m.	14.8 h	63°

Halifax July 1



Halifax July 31



[YouTube: RASC Halifax](#)

# Noctilucent Clouds

Sunlight below the horizon reflects off tiny ice crystals at 76-85 km



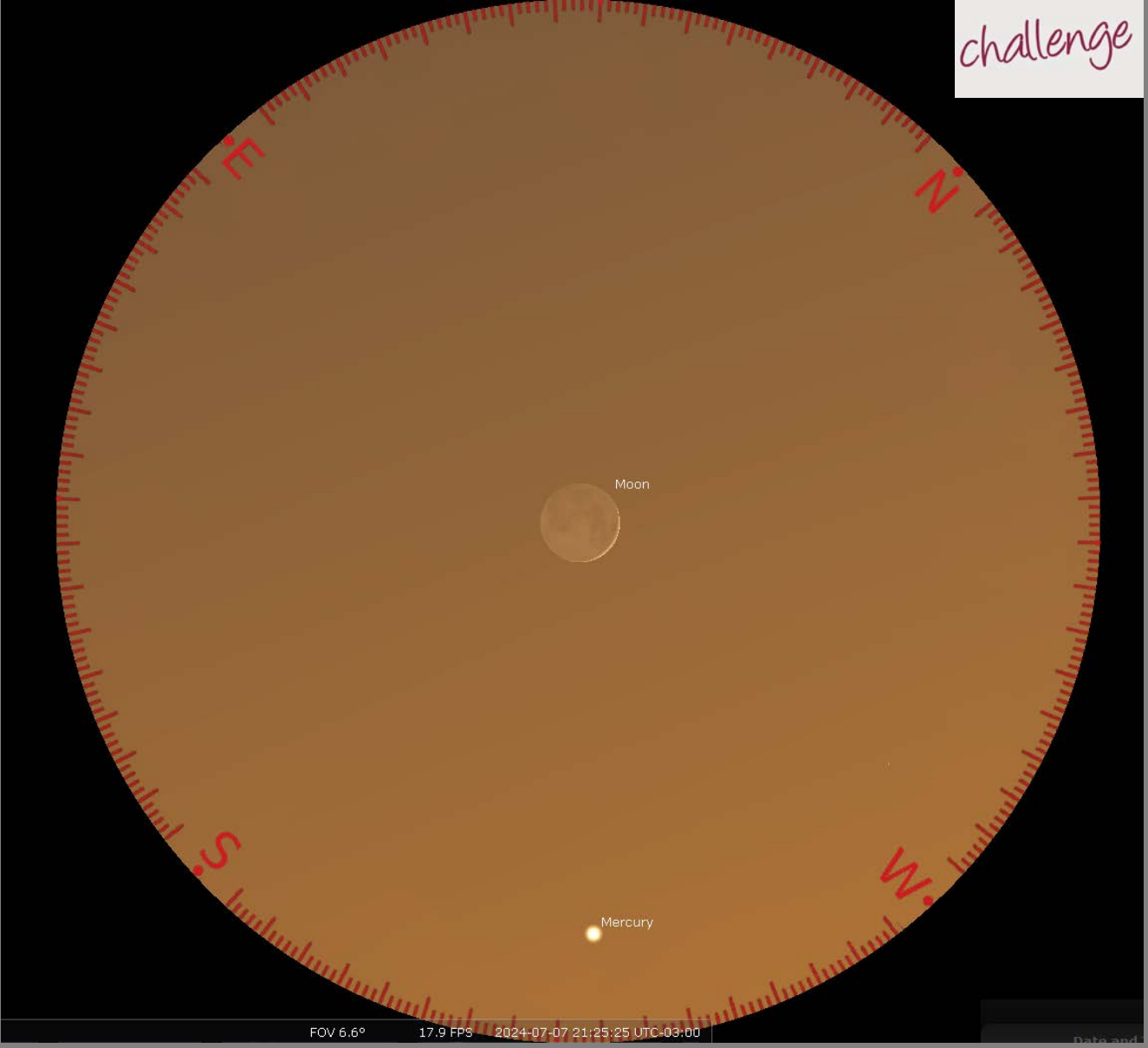
photo: David Hoskin

Visible in summer months during astronomical twilight (50-70° latitude)

# The Moon This Month

Date	Phase	English	Mi'kmaq
July 1	Mars near the Moon		
July 5	<i>New Moon</i>	Birds Shedding Feathers	<a href="#"><u>Peskewiku's</u></a>
July 7	Mercury near the Moon		
July 12	Moon at apogee (404,400 km)		
July 13	<i>First Quarter</i>		
July 17	<i>Full Moon</i>		
July 24	Moon at perigee (364,900 km)		
July 24	Saturn near the Moon		
July 28	<i>Last Quarter</i>		
July 30	Moon near M45, Mars, Jupiter		

challenge



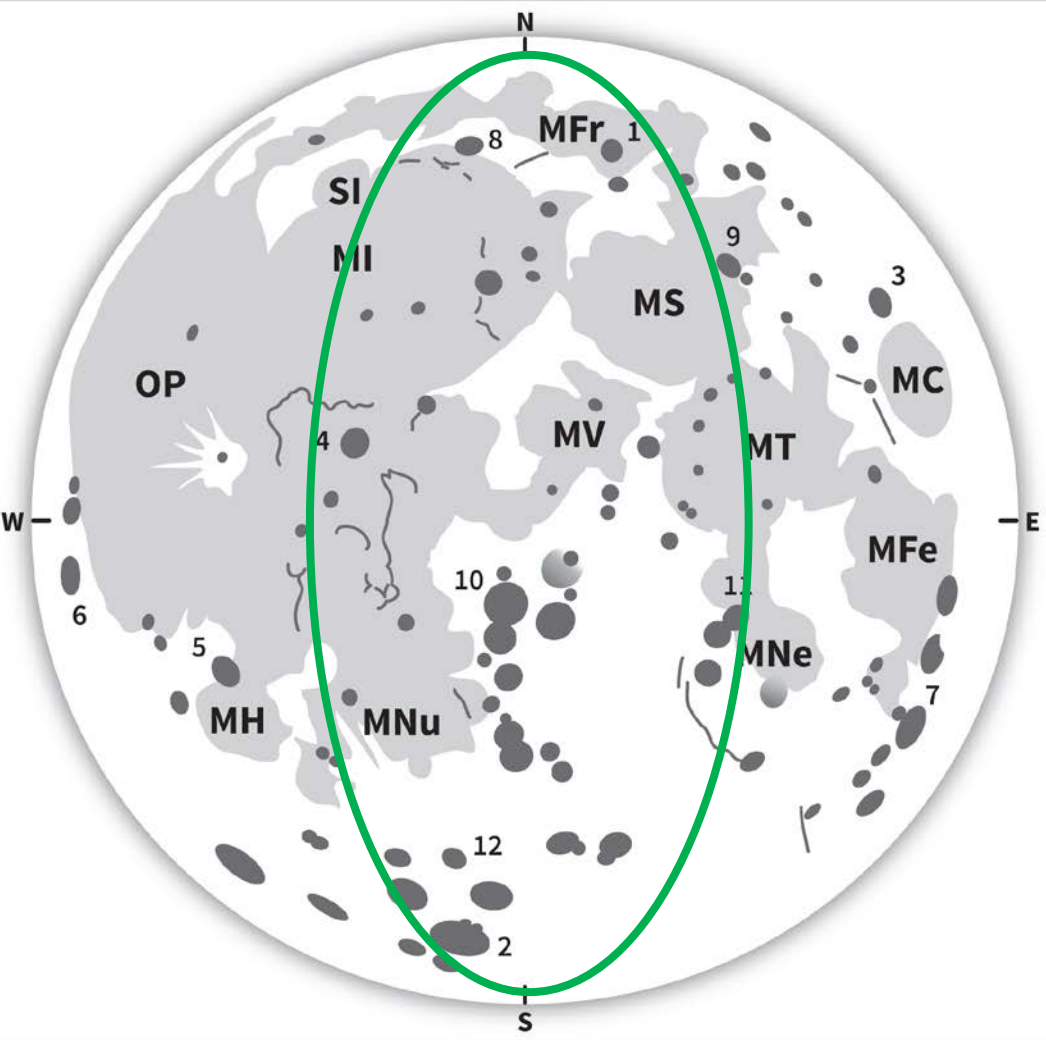
July 7 @ 9:30 p.m.

F.O.V with 7 x 50 binoculars



July 30 @ 4:30 a.m.  
Nicest photo-op in July!

challenge



## 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

July 11-15, 26-30

## The Moon in

*Explore the Universe*

*observe 3 of each in bins<sup>7</sup>*

### 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 July

Mercury-visible low in the W (mag. -0.6) after sunset

Venus -very low in the W (mag. -3.9) after sunset *challenge*

Mars -visible in Aries (mag. 1.0) in the pre-dawn sky at the start of July,  
then moves into Taurus on July 11  
-close conjunction with Uranus in Taurus on July 15

Jupiter -prominent in Taurus (mag. -2.0) in the pre-dawn sky

Saturn -rises in the E (mag. 0.9) after midnight at the start of July  
-close to the waning gibbous Moon on July 24

Uranus -visible in Taurus (mag. 5.8) in the pre-dawn sky

Neptune-visible for most of the night in Pisces (mag. 7.9)





July 15 @ 4:30 a.m.

F.O.V with 15 x 70 binoculars



## Explore the Universe:

## Summer Constellations

twilight ends late:

~11:10 p.m.





# Explore the Universe:

## Summer Stars

### Ranking:

#5 Vega (N)

#12 Altair (N)

#15 Antares (N)

#20 Deneb (N)

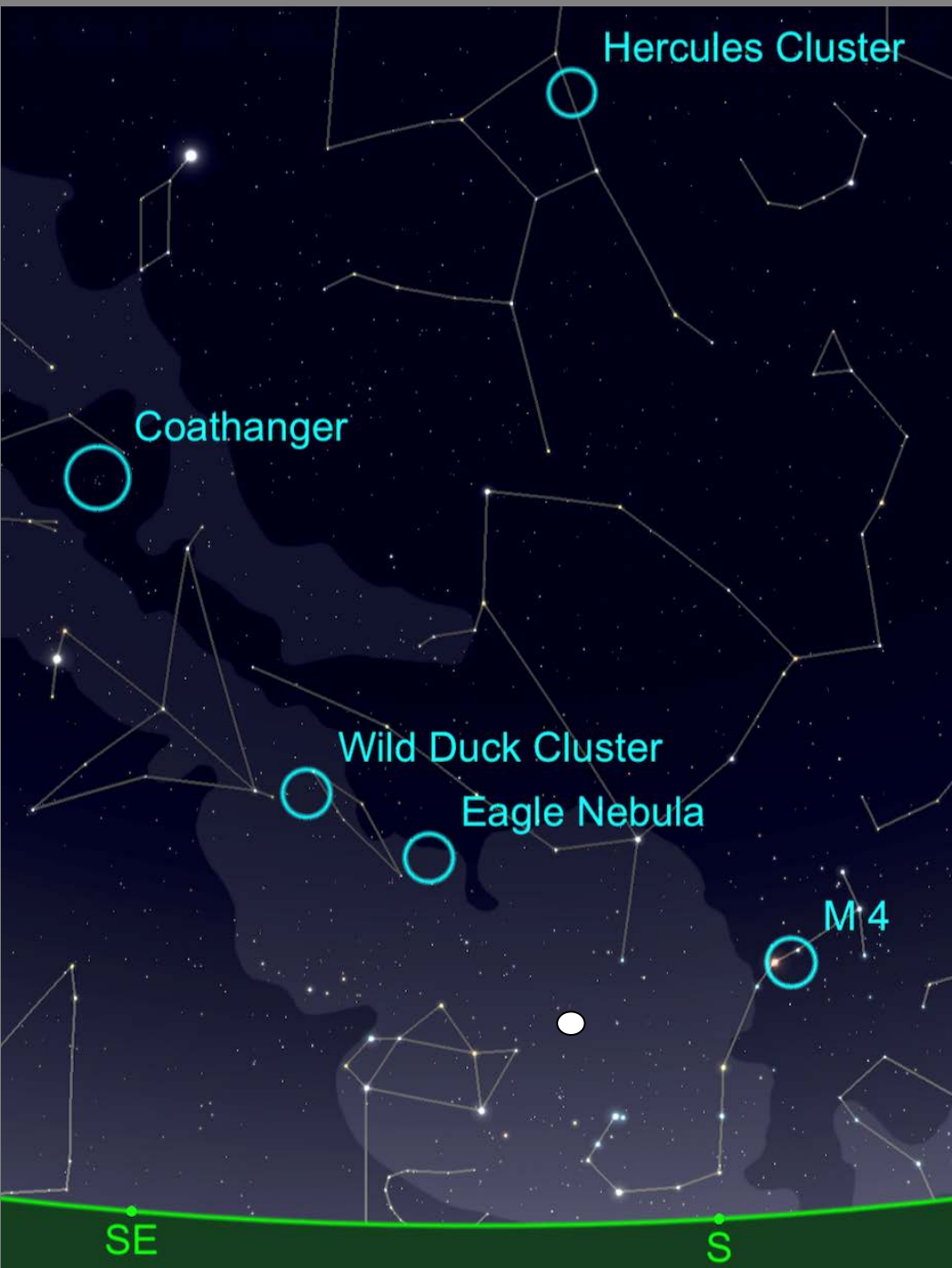
- Rasalgethi (A)

- Algedi

- Dabih

-Nunki (N)

- Albireo



# Explore the Universe:

## Summer Deep-Sky

### The Hercules Cluster

(Messier 13/NGC 6205)

145 LY in diameter and contains several hundred thousand stars (view in binoculars in dark sky)





# Explore the Universe: Summer Double Stars

Albireo (β Cygni)

Colorful double star

Split with binoculars

*challenge*



photo: David Hoskin

Questions?

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NGC 6819

photo: David Hoskin