What's Up?
June 1-30, 2020 (and then some)

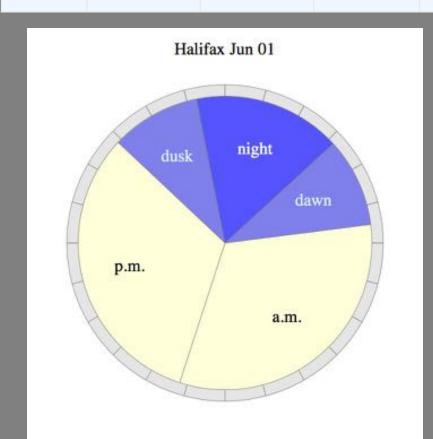
made with the RASC Observer's Handbook and SkySafari®

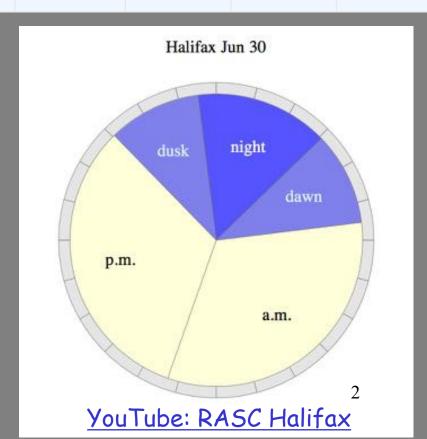
photo: Dave Chapman

### The Sun This Month

Today's Solar Activity

Date	Sunset	Dusk End	Darkness	Dawn Start	Sunrise	"Noon"	Sunlight	Max Altitude
June 1	8:53 p.m.	11:15 p.m.	3.9 h	3:10 a.m.	5:31 a.m.	1:12 p.m.	15.4 h	67°
June 30	9:03 p.m.	11:31 p.m.	3.6 h	3:04 a.m.	5:32 a.m.	1:18 p.m.	15.5 h	68°



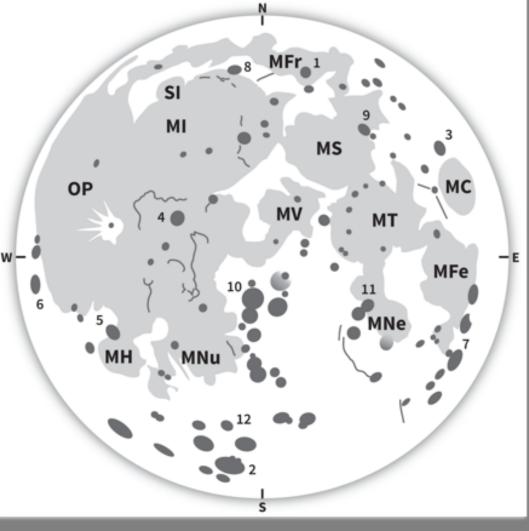


## The Moon This Month

Date	Phase	English	Mi'kmaq
June 5	Full Moon	Trees Fully Leafed	Nipniku's
June 8/9	Moon, Jupiter, Saturn before dawn		
June 13	Last Quarter		
June 19	Occultation of Venus by Moon		
June 21	New Moon (annular eclipse)	Trees Fully Leafed 2	Nipniku's
June 28	First Quarter		







CRATERS

1. Aristoteles

2. Clavius

3. Cleomedes

4. Copernicus

5. Gassendi

6. Grimaldi

7. Petavius

8. Plato

9. Posidonius

10. Ptolomaeus

11. Theophilus

12. Tycho

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

The Moon in

Explore the Universe

observe 3 of each in binos

#### The Planets This Month

- Mercury Greatest Eastern Elongation June 4
  - best apparition in 2020 in evening sky

#### Venus

- close inferior conjunction June 3
- (transit 8 years ago)
- low in the eastern morning sky after that
- lunar occultation reappearance in June 19 twilight

#### Mars

- mag. -0.5 morning object by end of month
- disk size exceeds 11" by end of month
- time to start observing!
- near Moon on June 13

## challenge

#### Jupiter & Saturn

- dawn sky—transit around 3:30
- close to Moon June 8&9

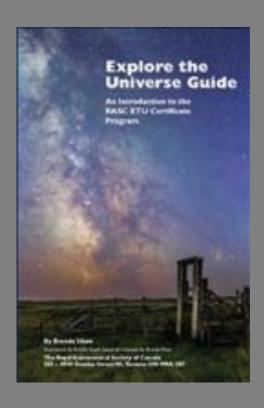
Neptune- near Mars and the Moon June 13

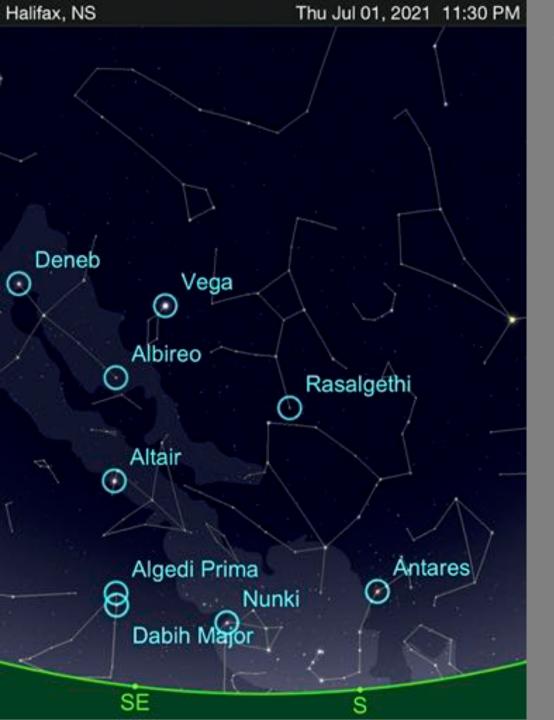
#### **Uranus**





# Explore the Universe: Summer Constellations





# Explore the Universe: Summer Stars

Ranking:

#5 Vega (N)

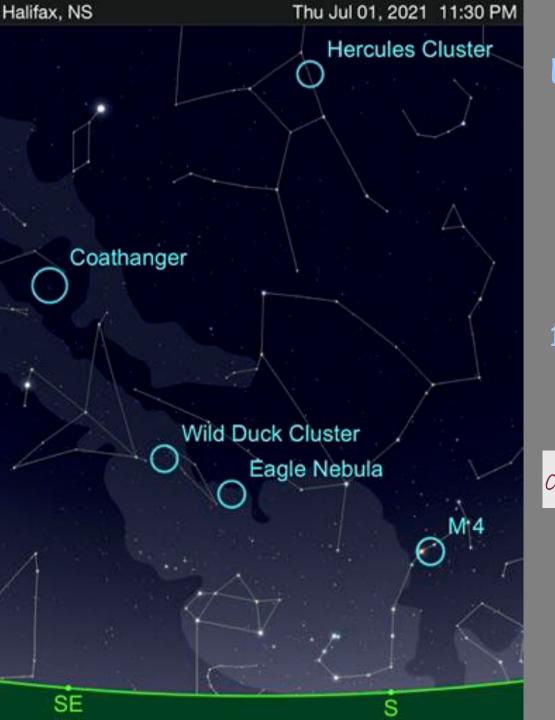
#12 Altair (N)

#15 Antares (N)

#20 Deneb (N)

- Rasalgethi

- Algedi
- Dabih
- -Nunki



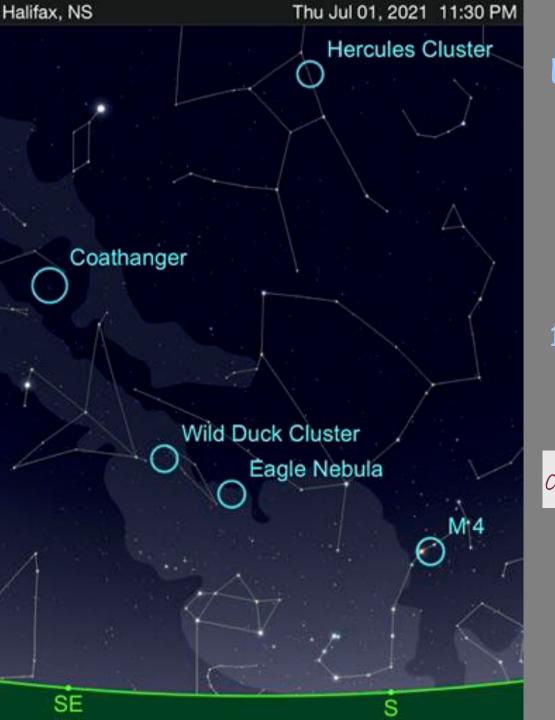
# Explore the Universe: Summer Deep-Sky 1

The Coathanger (Col 399)

1/3 the way from Altair to Vega

(view in binoculars in dark sky)





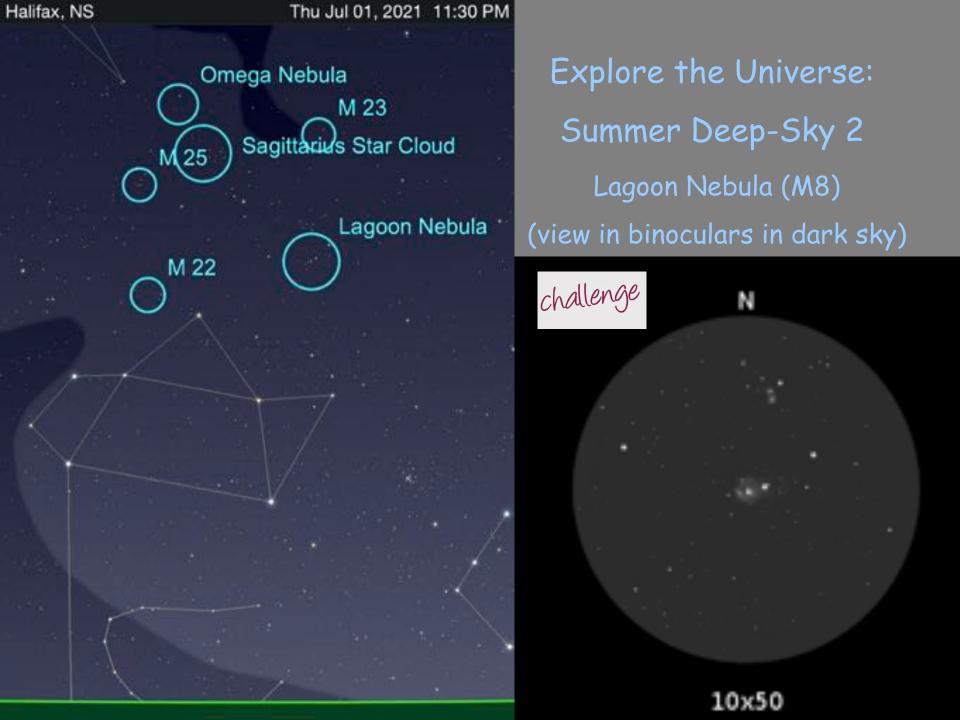
# Explore the Universe: Summer Deep-Sky 1

The Coathanger (Col 399)

1/3 the way from Altair to Vega

(view in binoculars in dark sky)







# Explore the Universe: Summer Double Stars

Omicron 1 Cygni triple star

challenge

### Some Celestial Highlights in July and August

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July
         - 5<sup>th</sup>
                    Full Moon "Trees Fully Leafed 2"
                  Venus Greatest Illuminated Extent mag. -4.7 in morning sky
          - 10<sup>th</sup>
                    Jupiter at opposition mag. -2.8, disk 48 arcseconds
          - 14<sup>th</sup>
          - 20<sup>th</sup>
                    New Moon, Saturn at opposition mag. +0.1 rings 43"
                    Full Moon "Birds Shedding Feathers"
         - 3rd
August
          - 9<sup>th</sup>
                    Mars close to Moon
          - 12<sup>th</sup>
                    Perseid meteor shower (Last Quarter Moon)
                   Venus Greatest Elongation West (in morning sky)
          - 13<sup>th</sup>
         - 15<sup>th</sup>
                    double satellite transit on Jupiter
          - 19<sup>th</sup>
                   New Moon
          - 22<sup>nd</sup>
                    double satellite transit Jupiter
                    dwarf planet Ceres at opposition in Aquarius mag. 7.7
          - 28<sup>th</sup>
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Check: RASC Observer's Handbook SkyNews magazine

https://skynews.ca/

