



# August 2023 Astronomy Report



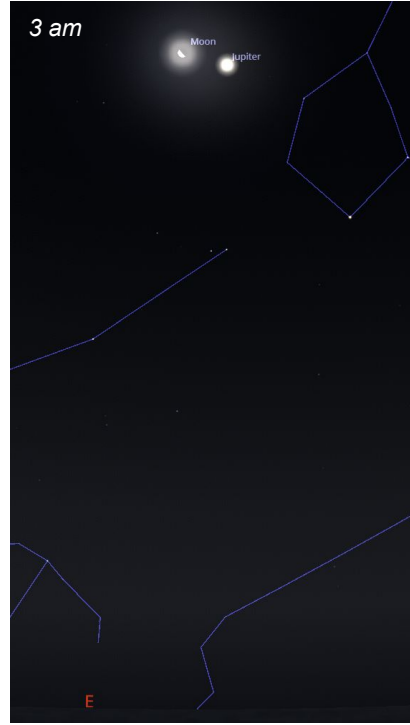
- **Moon:**
  - Phases
    - Two full moons
  
- **Planets:**
  - Evening planets - Mars, Mercury, Saturn
    - Mars, Mercury diminishing, Saturn growing
  - Morning planets - Saturn, Jupiter, Neptune, Uranus, Venus
    - Gas giants dominate
    - Venus reappears at end of month
  
- **Meteor Shower:**
  - Perseid
  
- **Dark Sky Star Party:**
  - Club Observatory, August 12
  
- **Public Viewing:**
  - Cub Lake, August 26

# Moon - Phases

August 1 - Full Moon (Capricornus)

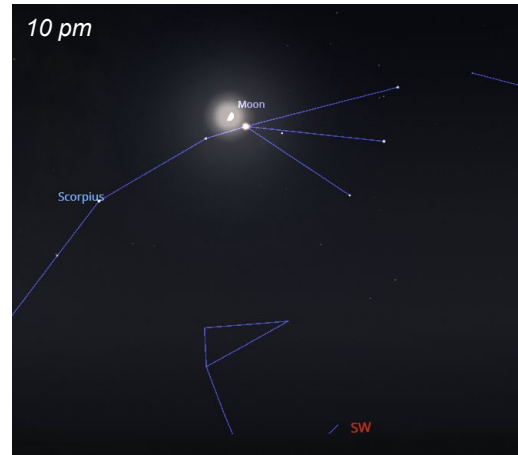


August 8 - Last Quarter (Cetus)

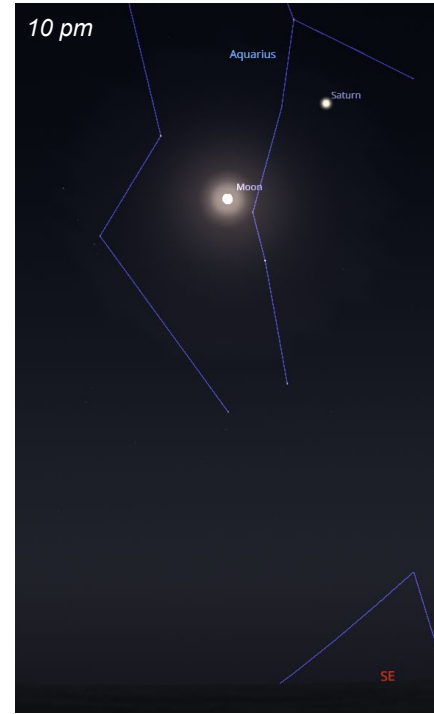


August 16 - New Moon

August 24 - First Quarter (Scorpius)



August 30 - Full Moon (Aquarius)



Perigee (222K miles) - 2nd, 30th  
Apogee (253K miles) - 16th



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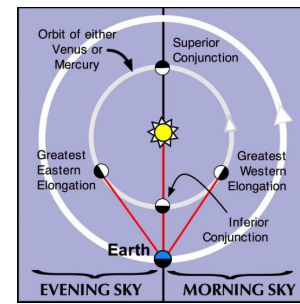
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# Early Evening: Mars, Mercury - (Leo)

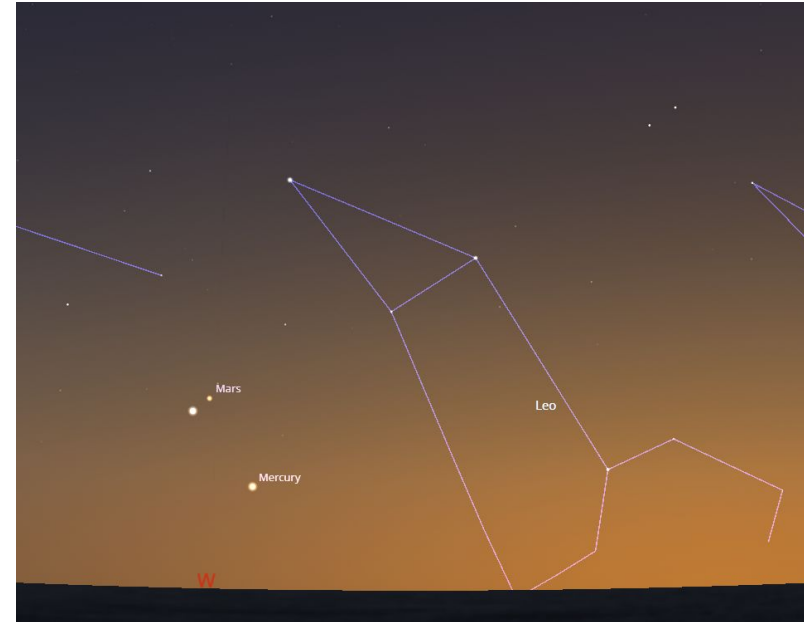
Mercury reaches greatest eastern elongation on August 9

Mars fading as it continues its slow journey on the far side of the solar system from Earth

Both become extremely difficult to view by last week of August

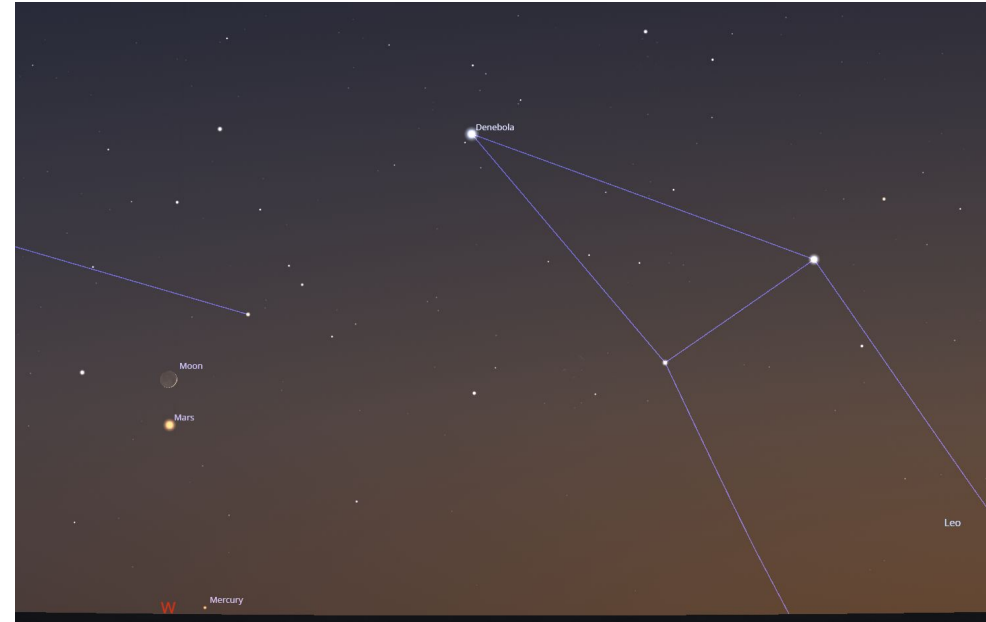


August 9, 8:30 pm



Chinese Tiangong space station near Mars

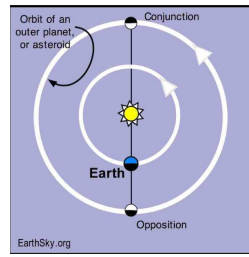
August 18, 8:30 pm



# Evening / Morning: Saturn (Aquarius)

Saturn visible throughout the night, reaches opposition on August 27

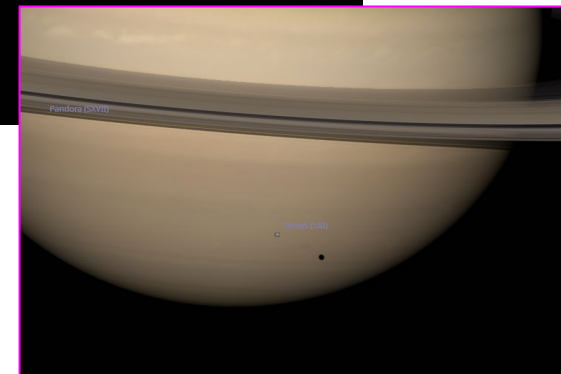
In a few years, the rings will appear edge-on with only a small annual fluctuation



August 7, 3 am



*Tethys transit*



# Morning: Jupiter, Uranus - (Aries, Taurus)

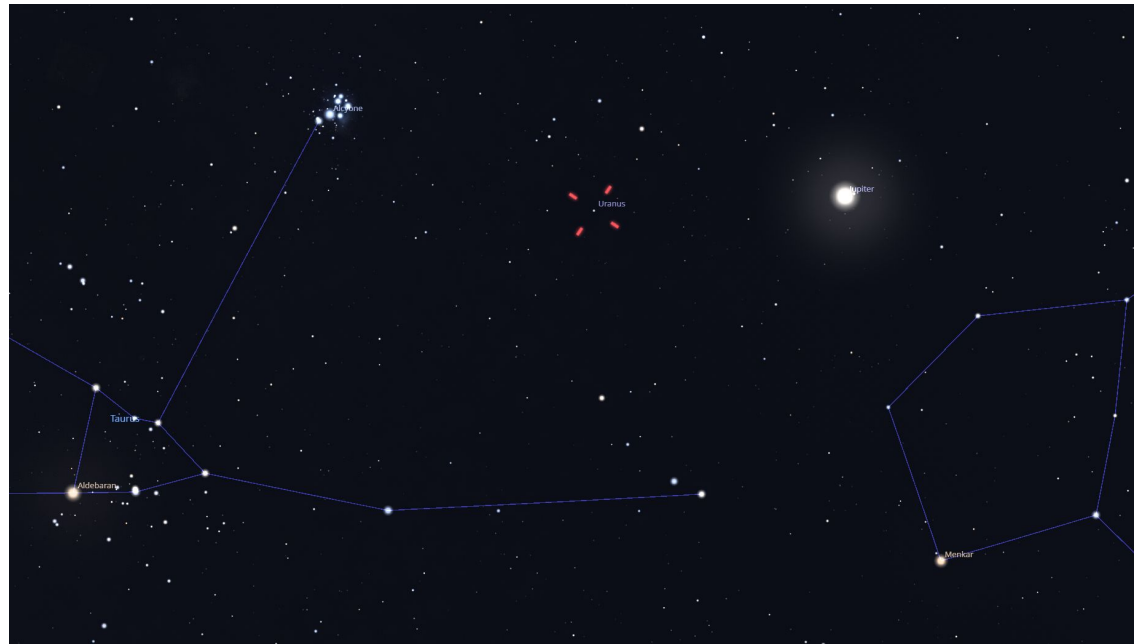
*Jupiter rises shortly after midnight at beginning of August, around 10:30 pm at end of August  
Uranus best viewed in the hour before dawn high in the SE between the Pleiades and Jupiter*

**August 8, 3 am**



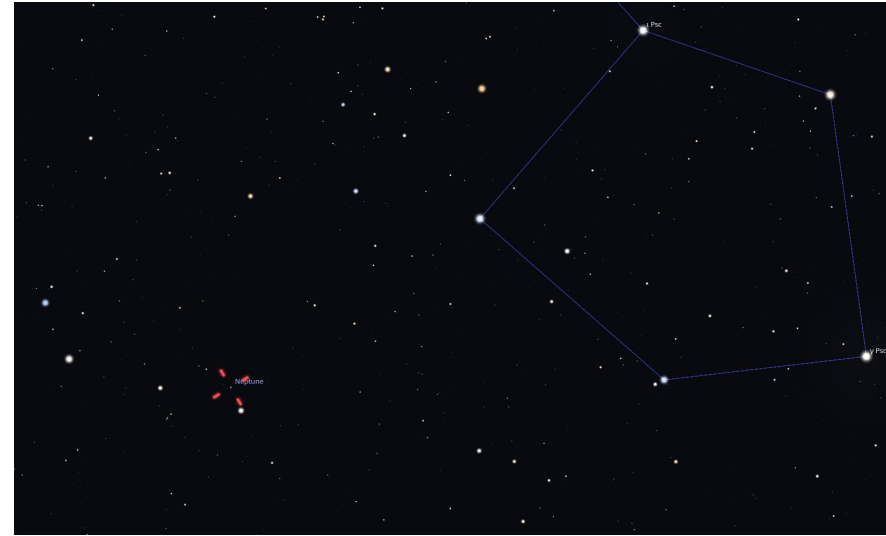
**August 31, 5 am**

*Visible with binoculars*



# Evening / Morning: Neptune - (*Pisces*)

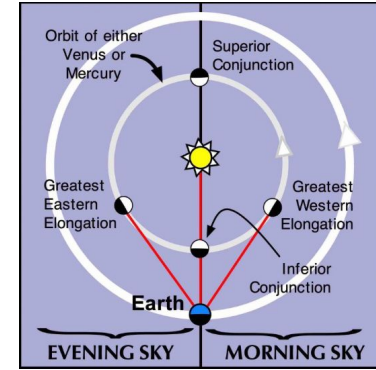
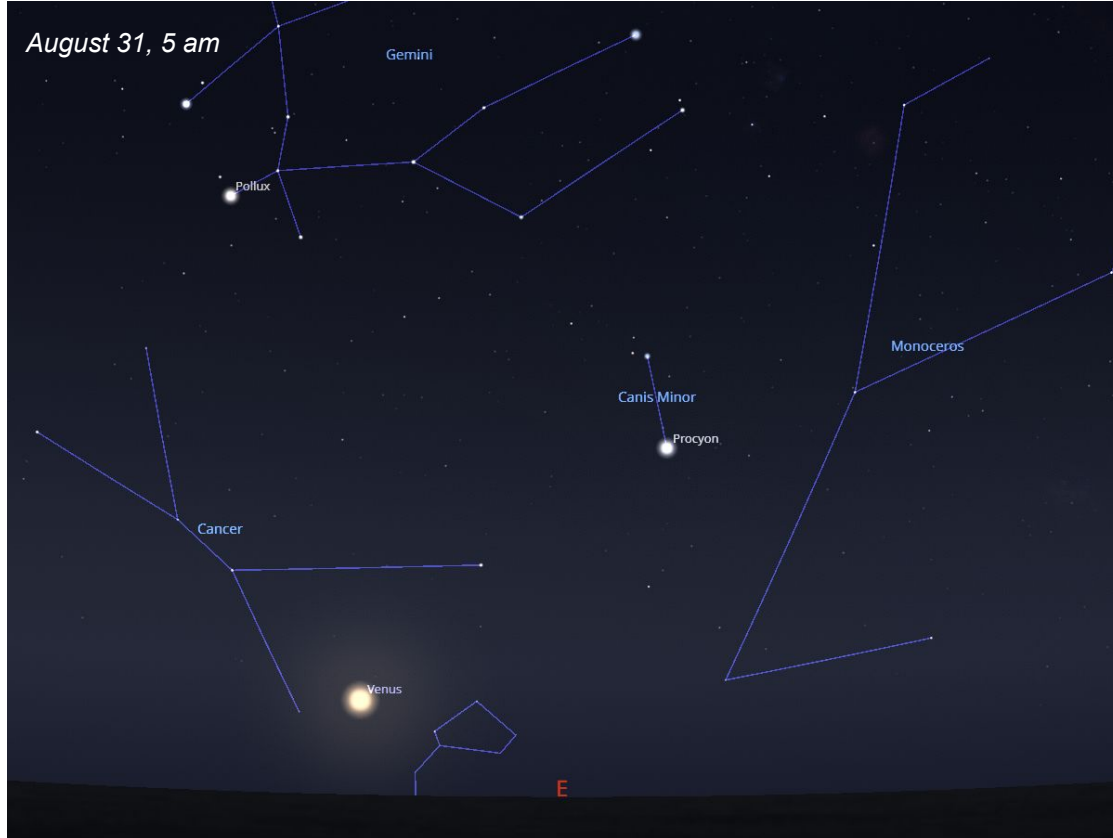
Neptune rises by 10:30 pm at beginning of August, 8:30 pm by end of August



*Visible with binoculars*

# Morning: Venus - (Cancer)

Venus reappears in early morning by end of August after passing inferior conjunction on August 13







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# Meteor Shower - Perseid

- active July 17 - August 24; peak date August 13 (expected rates >1 per minute in the hour before dawn)
- A favorite constellation to watch during Perseids is Cygnus, as many shower members run its length





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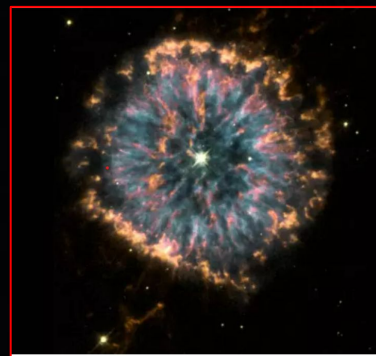
# August Dark Sky Party Club Observatory, August 12

Ps 19:2

## 1 - Perseid Meteor Shower 10 pm



## 2 - Glowing Eye Nebula

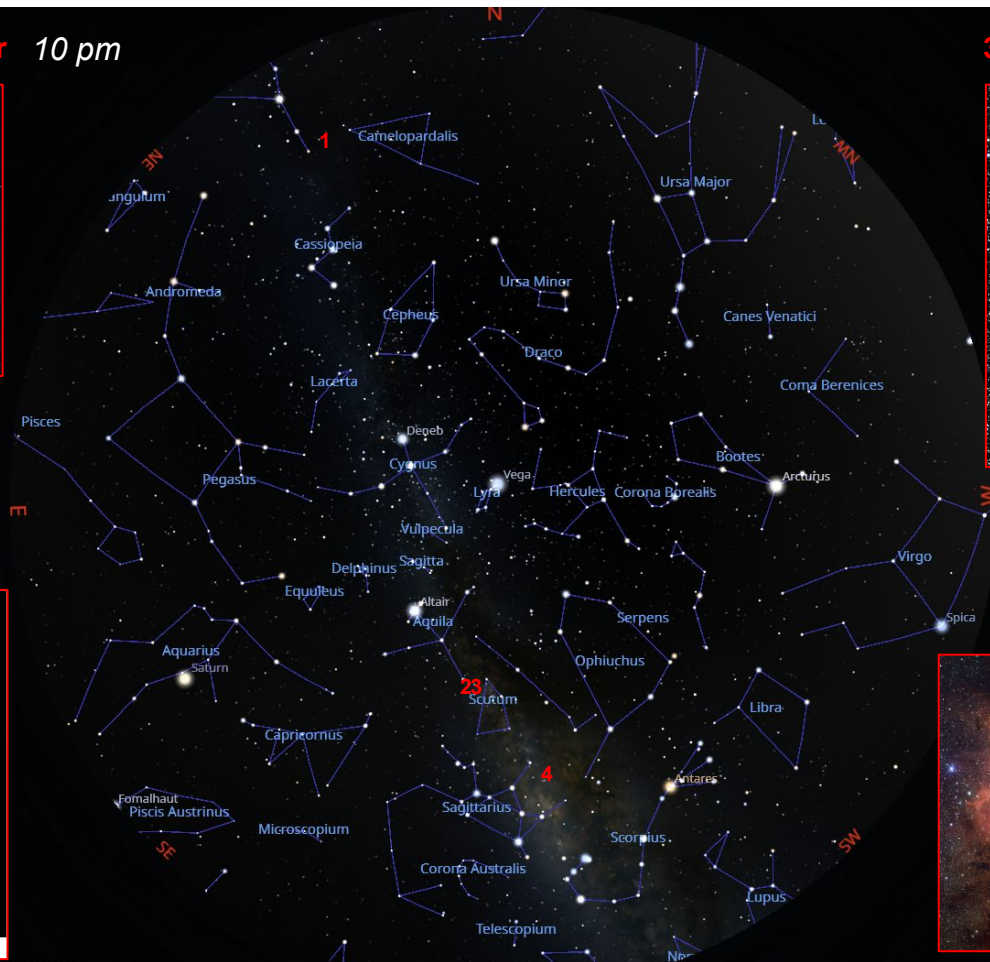


The Glowing Eye Nebula (NGC 6751), Image: NASA, The Hubble Heritage Team

## 3 - Wild Duck Cluster (M11)



## 4 - Lagoon Nebula





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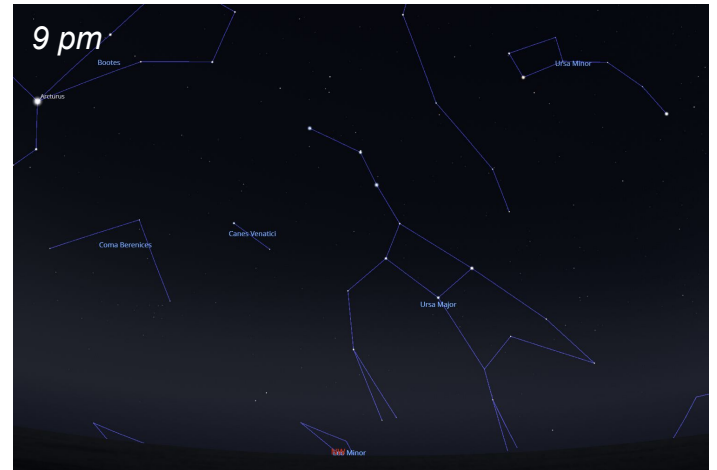
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# August Public Viewing

Cub Lake, August 26



*Saturn with waxing 1st quarter Moon*



*Big & Little Dipper*