



June 2024 Astronomy Report

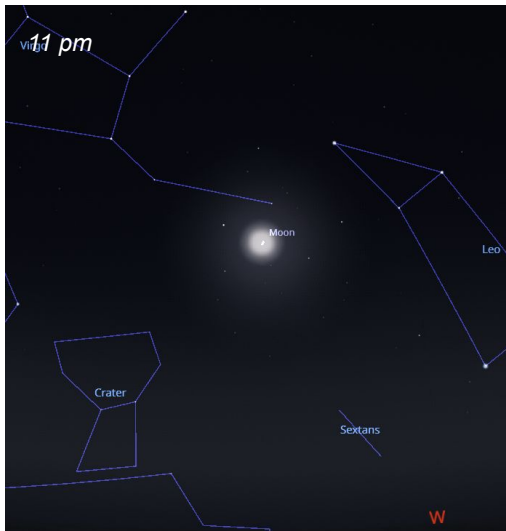


- **Moon:**
 - Phases
- **Planets:**
 - Morning planets
 - Jupiter, Uranus, Mars, Neptune, & Saturn
 - Mars & Saturn most visible
 - Evening planet
 - Mercury has very limited visibility late in month
 - Venus in superior conjunction June 4th, not visible
- **Comets/Asteroids/Meteor Showers:**
 - 13P / Olbers
- **New Moon Star Party:**
 - Location - Plymate observatory, June 6
- **Public Viewing:**
 - Cub Lake, June 13

Moon - Phases

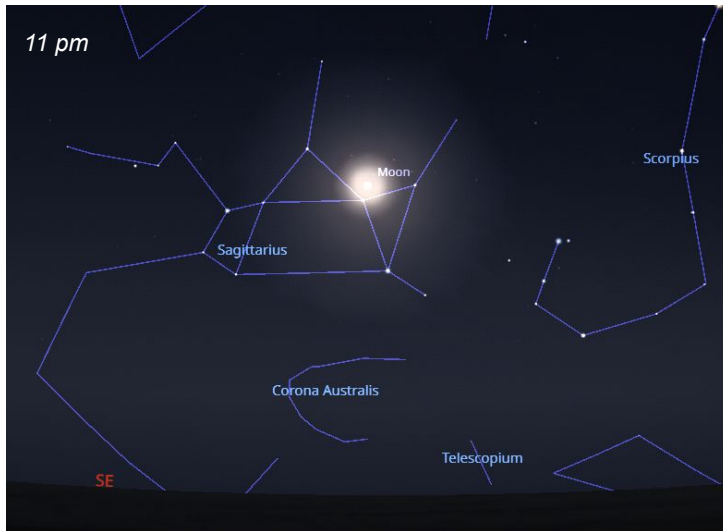
June 6 - New Moon

June 13 - First Quarter (Virgo)



June 20 - Summer solstice ~2 pm

June 21 - Full Moon (Sagittarius)



June 27 - Saturn and gibbous Moon (Aquarius)



June 29 - Last Quarter (Pisces)



Apogee (251K miles) - 14th
Perigee (229K miles) - 27th



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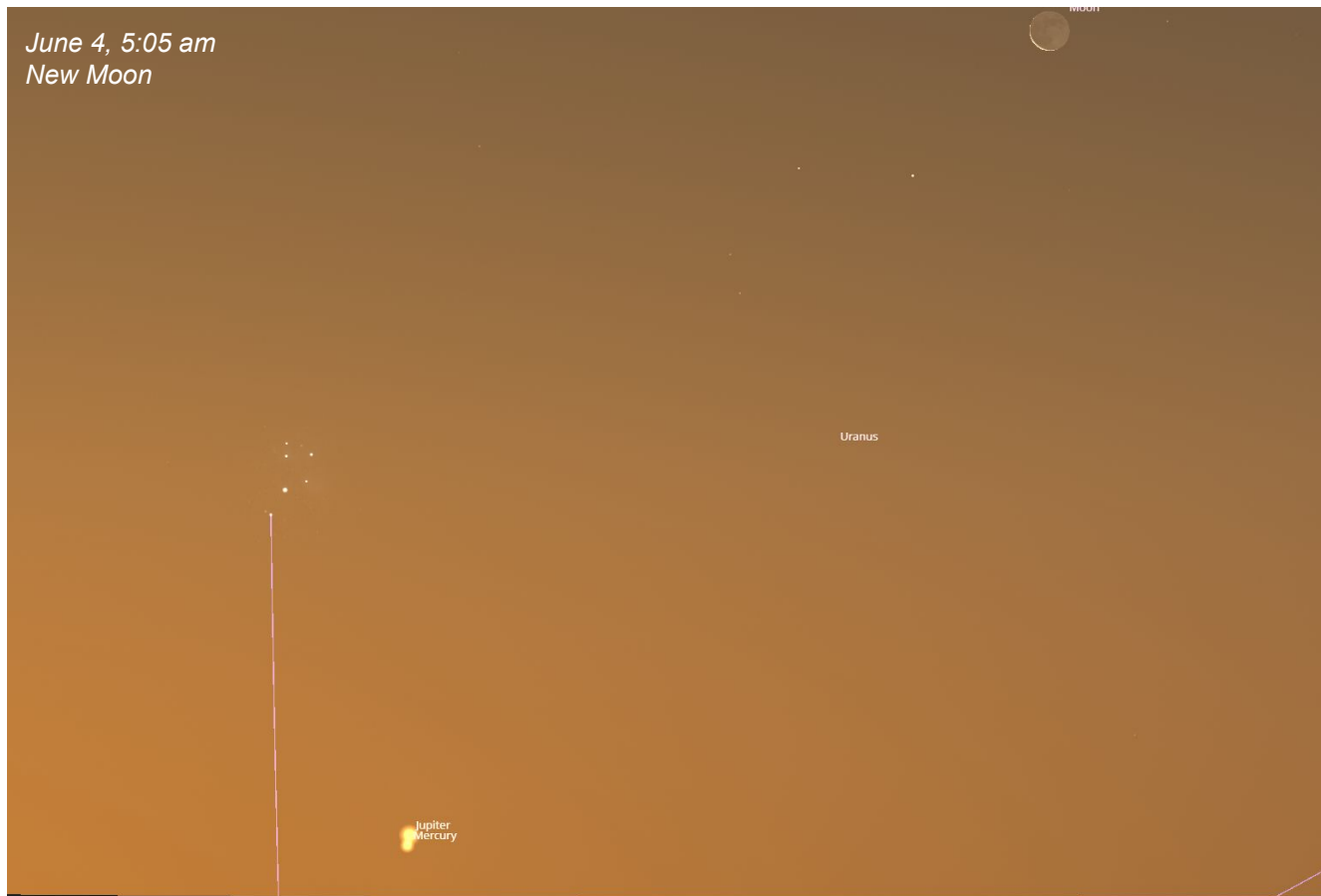
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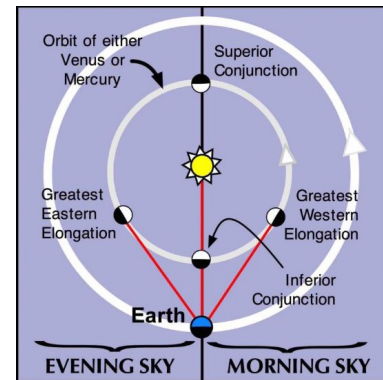
Morning: Mercury & Jupiter conjunction - (Taurus)

Twilight view, very low on NNE horizon

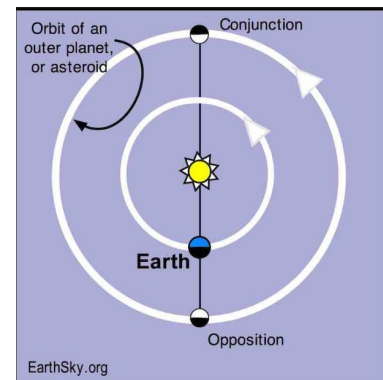
June 4, 5:05 am
New Moon



Mercury in superior conjunction on June 14, in evening sky by end of month



Jupiter passed superior conjunction in May



Morning: Mars/Neptune/Saturn - (Pisces, Aquarius)

Saturn first to rise, climbs higher before dawn as the month progresses



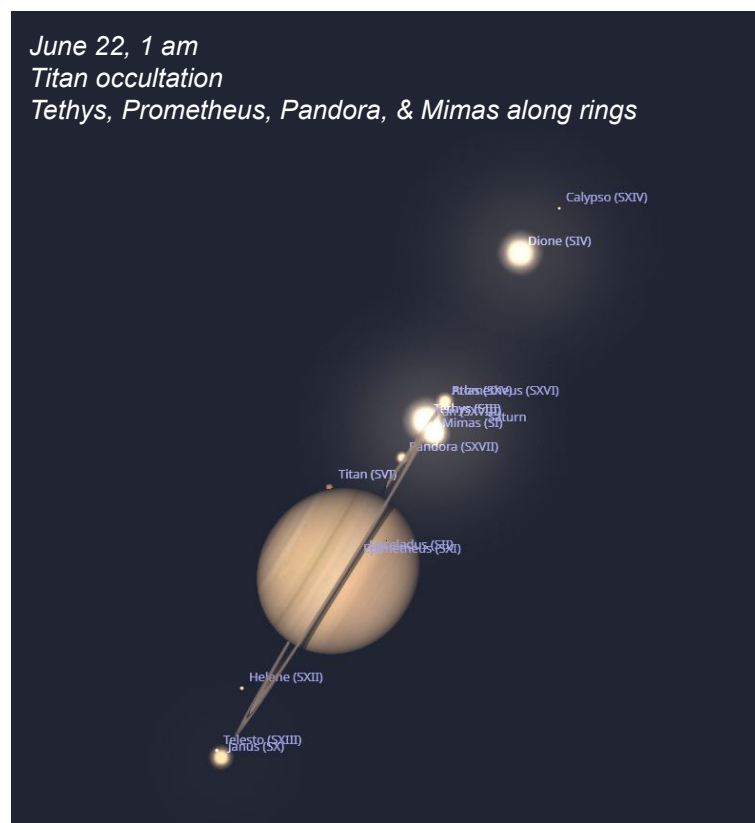
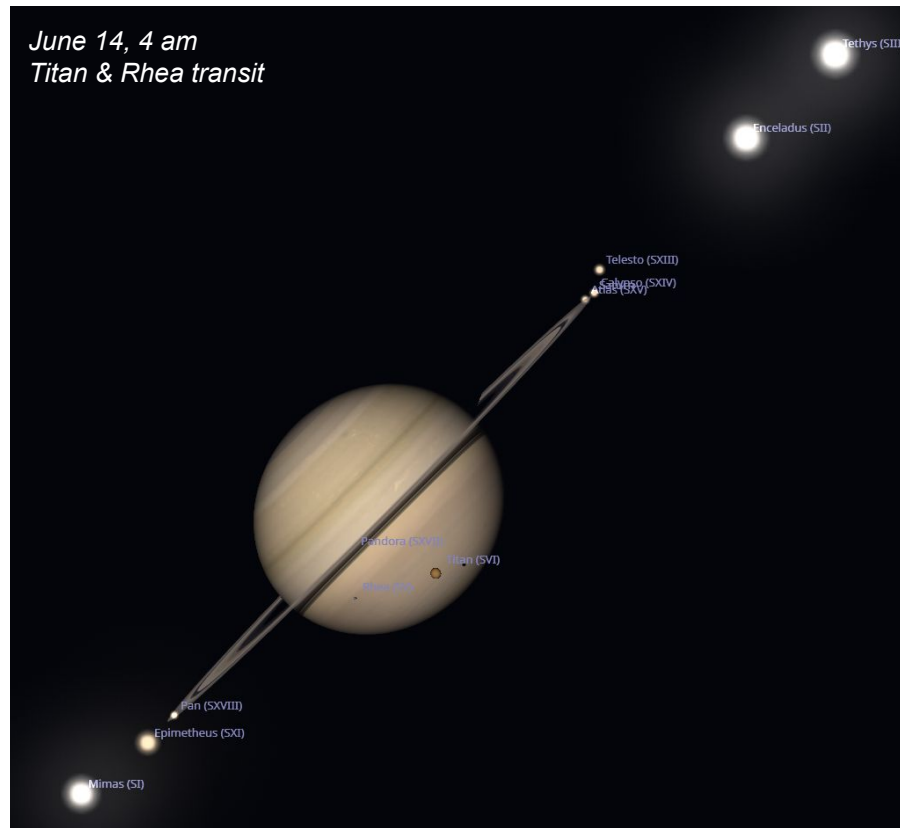
Morning: Jupiter/Uranus/Mars/Moon/Neptune/Saturn

Jupiter & Uranus rise before dawn the last week of June



Morning: Saturn - (Aquarius)

With Saturn's tilt flattening, transits and occultations of its moons are common
2024 is the last year before the ring-plane crossing, so the rings appear very slender





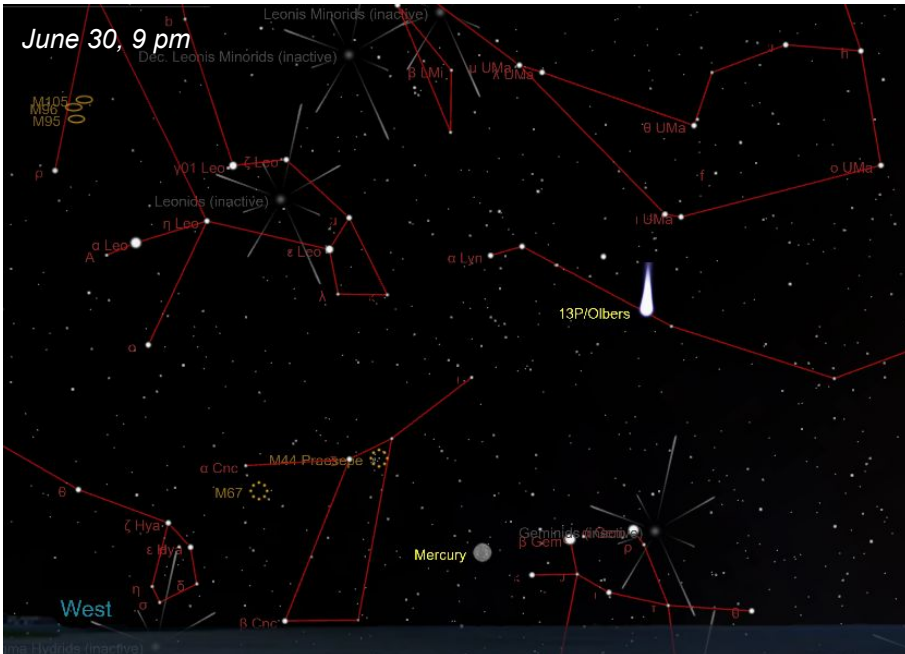
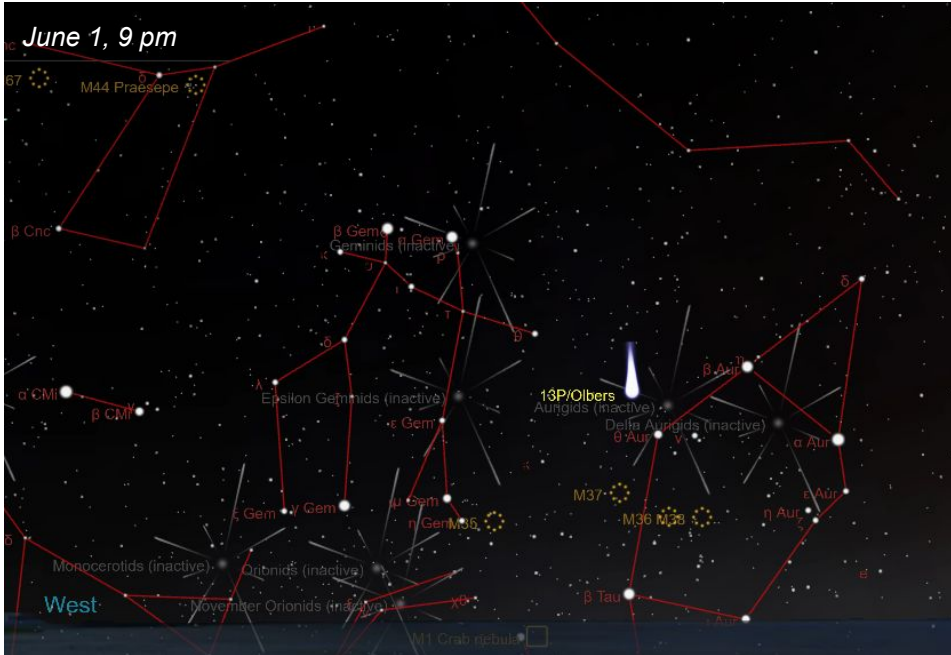
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Comet Search 13P/Olbers

Discovered in 1815, has an orbital period of 69 years, never gets closer to the Sun than Earth





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Dark Sky Star Party Location Plymate Observatory, June 6

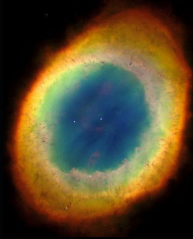
Ps 19:2

1 - M101 (Pinwheel Galaxy)



Face-on spiral galaxy
21MM light years from Earth
Binoculars, small telescope

2 - M57 (Ring Nebula)



Planetary nebula in Lyra constellation
2500 light years from Earth
Best observed with 8" or greater telescope

3 - IC 4592 (Blue Horsehead Nebula)

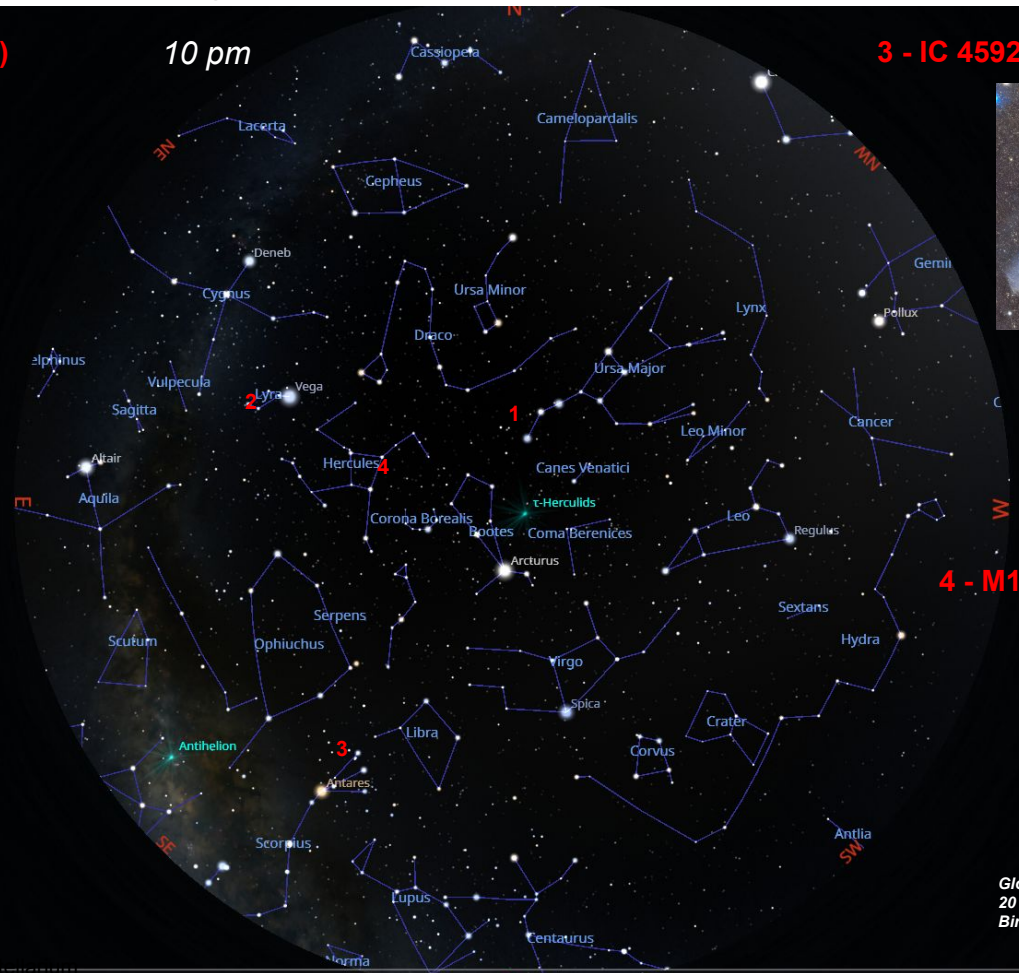


Reflection nebula in Scorpius constellation
400 light years from Earth
small telescopes

4 - M13 (Great Hercules Cluster)



Globular star cluster in Hercules constellation
20 - 25,000 light years from Earth
Binoculars, small telescopes



10 pm



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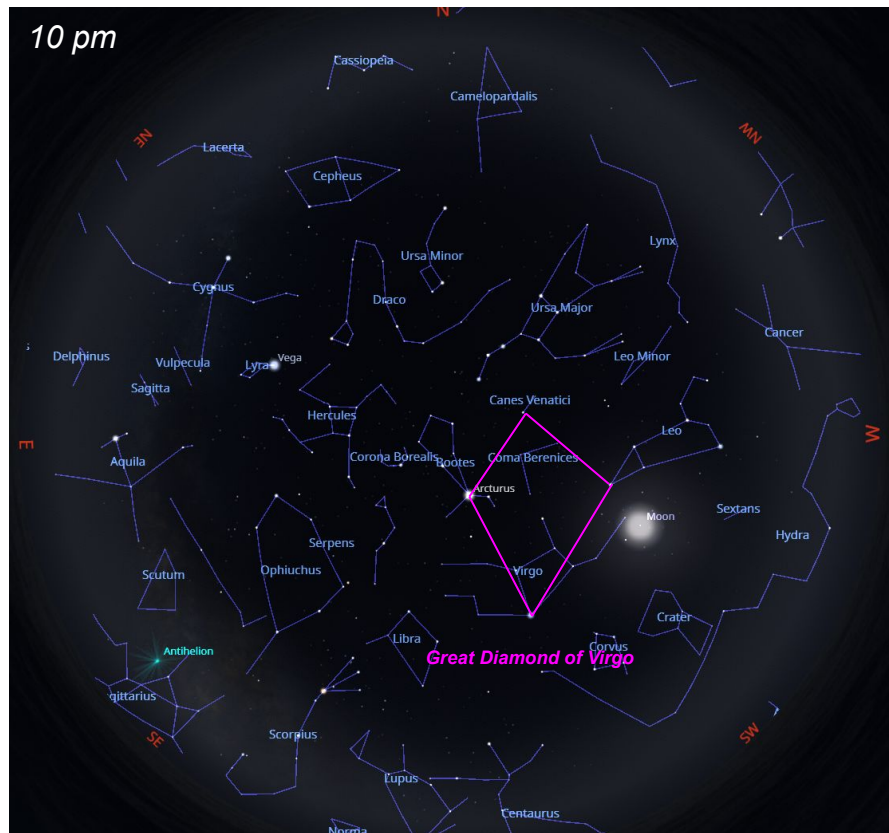
June Public Viewing Cub Lake, June 13

Sun sets 8:09 pm

Ps 19:2

First Quarter Moon

10 pm



June Viewing Chronology

- 1 - Comet 13P/Olbers in Auriga (*9 pm*)
- 4 - Jupiter/Mercury conjunction (*5 am*)
- 6 - Mars, Neptune, Saturn (*4 am*)
- 6 - New Moon Star Party
- 13 - First Quarter Moon Public Viewing
- 14 - Titan/Rhea transit of Saturn (*4 am*)
- 20 - Summer solstice
- 21 - Full Moon
- 22 - Titan occlusion by Saturn (*1 am*)
- 27 - Saturn/gibbous Moon (*4 am*)
- 29 - Last Quarter Moon
- 31 - 5 planets with Moon (*4 am*)
- 31 - Comet 13P/Olbers in Lynx (*9 pm*)